

# DEPARTMENT OF THE ARMY

FY 1997 BUDGET ESTIMATE

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DEFENSE BUSINESS OPERATIONS FUND

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DEFENSE BUSINESS OPERATIONS FUND - ARMY  
FY 1997 BUDGET ESTIMATE

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ARMY OVERVIEW



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ARMY OVERVIEW

**BACKGROUND**

The Department of the Army has historically operated a significant number of its organic commercial and industrial facilities under revolving fund concepts to encourage these activities to function in a more efficient and businesslike manner and to provide the additional flexibility needed to properly manage these facilities under changing workload conditions. The support services provided by the Defense Business Operations Fund businesses are absolutely essential to the success of the Operating Forces, and the businesses themselves are an integral part of the defense team.

**ARMY-MANAGED BUSINESSES**

The Army manages four business areas within the Defense Business Operations Fund.

**Supply Management, Army.** This business area buys and maintains assigned stocks of materiel for sale to its customers, primarily Army operating units. The availability of this materiel is linked to equipment and operational readiness and the war fighting readiness and abilities of Army units. The business area consists of a wholesale division and separate retail divisions for Army major commands. One other retail division is organized by function. The wholesale division is organized by type of secondary item with four major subordinate commands managing consumable and reparable items. The division also includes one program for DLA-managed prepositioned war reserves under Army control.

**Depot Maintenance - Other.** This business area maintains end items and depot-level reparable. Its mission encompasses the full range of depot maintenance services, including overhaul, rebuild, conversion, renovation, modification, repair, inspection and test, manufacture, fabrication and reclamation of materiel, as well as other maintenance support services. Installations store, maintain, distribute and demilitarize ammunition, and perform base support host operations. The business area consists of twelve government-owned and operated depots and depot activities.

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Depot Maintenance - Ordnance. The mission of this business is to manufacture, renovate and demilitarize ordnance materiel for all services within the Department of Defense and foreign military customers. The business consists of three arsenals and two ammunition plants that provide depot operations, depot maintenance, set assembly, tenant support and national procurement services for thin and thick walled cannon. The five activities are responsible for logistics management including follow-on procurement, production, maintenance, engineering and integrated logistics support management.

Information Services. This business is new in FY 1996 and its mission is to provide for the development and operational sustainment of automated information systems (i.e., requirements definition, system design, development, testing, integration, implementation support, and documentation services) to be performed at five development centers. These functions were formerly financed in an appropriated-fund environment.

In October 1995, the Industrial Operations Command (IOC) became operational. The IOC, located at Rock Island, Illinois, consolidates management of former Army Armament, Munitions and Chemical Command (AMCCOM) elements, including Army Depot Maintenance - Ordnance, and Army Depot Maintenance - Other (formerly managed by Depot Systems Command (DESCOM)). The IOC commands all Army depots, depot activities, ammunition plants, three arsenals, and other Army industrial activities. This consolidation results in savings in management headquarters costs.

In fiscal year 1996, the depot maintenance business areas will decapitalize the chemical demilitarization and storage mission to the U.S. Army Chemical Biological Defense Command (CBDCOM). The CBDCOM will be considered a tenant on the affected installations and will reimburse the business areas for base support costs.

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**PERSONNEL RESOURCES**

A key objective of the Army-managed DBOF businesses is to have the optimum mix of appropriately skilled people to match workload requirements. Reductions will be accomplished, to the maximum extent possible, through voluntary separations and hiring freezes. As a result, skill mismatches between the workforce and the workload requirements may be created. Such mismatches may cause unprogrammed losses as the Department dramatically downsizes.

Civilian and military end strengths and workyears, by business area, are as follows:

	FY 1995	FY 1996	FY 1997
<b>SUPPLY MANAGEMENT, ARMY</b>			
CIVILIAN END STRENGTH	4,152	4,100	3,846
CIVILIAN WORK YEARS (REGULAR)	4,532	4,287	3,974
MILITARY END STRENGTH	12	22	15
MILITARY WORK YEARS	52	24	18
<b>DEPOT MAINTENANCE - OTHER</b>			
CIVILIAN END STRENGTH	16,127	15,736	14,941
CIVILIAN WORK YEARS (REGULAR)	17,429	15,900	16,218
MILITARY END STRENGTH	421	234	121
MILITARY WORK YEARS	385	221	112
<b>DEPOT MAINTENANCE - ORDNANCE</b>			
CIVILIAN END STRENGTH	5,715	5,474	5,462
CIVILIAN WORK YEARS (REGULAR)	5,500	5,498	5,452
MILITARY END STRENGTH	59	27	24
MILITARY WORK YEARS	50	25	23
<b>INFORMATION SERVICES</b>			
CIVILIAN END STRENGTH	NA	908	847
CIVILIAN WORK YEARS (REGULAR)	NA	1,004	881
MILITARY END STRENGTH	NA	300	267
MILITARY WORK YEARS	NA	300	236

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**COST OF GOODS SOLD**

Total costs declined during the budget years as a result of mission transfers, elimination of missions, and BRAC-related workload reductions. Costs are reflected below by business area (\$M):

	FY 1995	FY 1996	FY 1997
<b>SUPPLY MANAGEMENT, ARMY</b>	9,714.5	9,986.4	8,719.3
<b>DEPOT MAINTENANCE - OTHER</b>	1,574.7	1,643.0	1,596.3
<b>DEPOT MAINTENANCE - ORDNANCE</b>	569.7	541.0	528.1
<b>INFORMATION SERVICES</b>		173.8	137.7

**NET AND ACCUMULATED OPERATING RESULTS.** The DBOF operates on a break-even basis over the budget cycle. The Army sets annual revenue rates to achieve positive or negative results, in order to bring accumulated operating results to zero in the budget years. The business area's effectiveness is measured by comparing performance to goal, rather than simple calculation of net operating results. Net and accumulated operating results are reflected below (\$M):

	FY 1995	FY 1996	FY 1997
<b>SUPPLY MANAGEMENT, ARMY</b>			
Net Operating Result	56.7	6.5	(13.0)
Accumulated Operating Result	6.5	13.0	-0-
<b>DEPOT MAINTENANCE - OTHER</b>			
Net Operating Result	109.5	(26.1)	47.6
Accumulated Operating Result	(21.5)	(47.6)	-0-
<b>DEPOT MAINTENANCE - ORDNANCE</b>			
Net Operating Result	42.8	(3.5)	1.5
Accumulated Operating Result	2.0	(1.5)	-0-
<b>INFORMATION SERVICES</b>			
Net Operating Result		-0-	-0-
Accumulated Operating Result		-0-	-0-

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**CAPITAL BUDGET**

The businesses seek to maintain and develop capabilities through equipment acquisition and the execution of minor construction projects. The budget request provides for equipment acquisition to replace obsolete and unserviceable equipment, repair processes modernization, elimination of environmental hazards, and decrease in repair costs through productivity improvements. The following table displays the capital budget authority for FY 1995 through FY 1997, by business area (\$M):

	FY 1995	FY 1996	FY 1997
SUPPLY MANAGEMENT, ARMY	18.976	15.523	26.905
DEPOT MAINTENANCE - OTHER	23.820	53.158	67.492
DEPOT MAINTENANCE - ORDNANCE	6.559	21.762	17.469
INFORMATION SERVICES	-0-	-0-	-0-

**UNIT COSTS**

Unit costing is the methodology established in the DBOF to authorize and control costs. Unit cost goals allow activities to respond to workload changes by setting goals to reduce costs when workload declines and to provide for the additional cost authority necessary to meet increased customer demand. However, in spite of productivity initiatives and transfers of some functions, Depot Maintenance unit costs are rising as a result of fixed costs being spread over a decreasing order base.

The following unit cost goals have been established for the Army-managed businesses:

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	FY 1995	FY 1996	FY 1997
<b>SUPPLY MANAGEMENT, ARMY</b>			
Wholesale: Cost/\$ Gross Sales	\$ .81	\$ .81	\$ .93
Retail: Cost/\$ Gross Sales	\$1.00	\$ .98	\$1.00
<b>DEPOT MAINTENANCE - OTHER</b>			
\$ per Direct Labor Hour	\$82.12	\$89.12	\$92.04
<b>DEPOT MAINTENANCE - ORDNANCE</b>			
\$ per Direct Labor Hour	\$89.00	\$92.04	\$91.65
<b>INFORMATION SERVICES</b>			
\$ per Direct Labor Hour			\$61.75

**CUSTOMER RATE CHANGES**

In FY 1997 business area rates have been set to recover prior year losses or return prior year gains. Rate changes are expressed as a percentage change from the rate charged in the previous year. The FY 1996 rate decreases in the depot maintenance businesses are primarily due to return of prior year gains. Rate changes are shown in the following table. In FY 1997, the Supply Management business is replenishing fewer stocks than are sold. The savings generated from this difference between sales and replenishment is being returned to customers in the form of reduced prices (6% lower than FY 1996).

	FY 1995	FY 1996	FY 1997
<b>SUPPLY MANAGEMENT, ARMY</b>	8.0%	5.4%	(6.0%)
<b>DEPOT MAINTENANCE - OTHER</b>	15.6%	(23.1%)	6.9%
<b>DEPOT MAINTENANCE - ORDNANCE</b>	25.8%	(14.1%)	4.9%
<b>INFORMATION SERVICES</b>	NA	NA	2.2%

**REVENUE**

The following table displays expected revenue by business area (\$M):

	FY 1995	FY 1996	FY 1997
<b>SUPPLY MANAGEMENT, ARMY</b>	9,817.5	10,129.4	8,569.6
<b>DEPOT MAINTENANCE - OTHER</b>	1,775.0	1,633.4	1,660.9
<b>DEPOT MAINTENANCE - ORDNANCE</b>	615.7	537.5	529.6
<b>INFORMATION SERVICES</b>		173.8	137.7

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**WORKLOAD**

Generally, workload is declining in the budget years due to continued downsizing of the operating forces. In the Supply Management business, area workload reductions in pipeline replacements are based on efforts to decrease lead-times.

	FY 1995	FY 1996	FY 1997
<b>SUPPLY MANAGEMENT, ARMY</b>			
Line Items Managed	189,834	174,299	170,256
Requisitions Received (\$M)	\$4,381.6	\$4,205.6	\$4,024.9
Receipts	390,646	327,802	376,478
Issues	1,487,458	1,248,168	1,433,513
Contracts Executed	10,778	10,899	11,489
<b>DEPOT MAINTENANCE - OTHER</b>			
DLH 000	19,175	18,435	17,417
<b>DEPOT MAINTENANCE - ORDNANCE</b>			
DLH 000	6,401	5,878	5,726
<b>INFORMATION SERVICES</b>			
DLH 000			2,230

**CUSTOMER REVENUE RATES**

In the Depot Maintenance and Information Services business areas, customer revenue rates are set per direct labor hour. These rates are stabilized so that the customer's buying power is protected in the year of execution. The following table shows the revenue rate per direct labor hour for these businesses:

	FY 1995	FY 1996	FY 1997
<b>DEPOT MAINTENANCE - OTHER</b>	\$109.51	\$84.24	\$90.07
<b>DEPOT MAINTENANCE - ORDNANCE</b>	\$98.73	\$84.78	\$88.93
<b>INFORMATION SERVICES</b>			\$64.89



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**SUPPLY INVENTORY AND MATERIAL REPLACEMENT**

The Supply Management business area inventory has decreased by over \$2 billion from FY 1994 (\$13.4B) to FY 1995 (\$11.3B). Force structure changes, the Reduced Price Initiative, and the Army Total Inventory Management program are all contributing factors to the decrease. On going leadtime reduction initiatives should lead to continued inventory reductions.

The Supply Management business area was limited by law in materiel replacement rate (the percentage of sales that can be re-ordered) from 1991 to 1995. The FY 1997 budget was not built on a constrained replacement rate, but is still less than the FY 1995 replacement limit of 65 percent.

**PERFORMANCE INDICATORS**

Performance indicators for the depot maintenance and information services business areas are labor hour costs, net operating results, and unit cost. In addition, schedule conformance is another indicator for depot maintenance. The goals for these are to execute labor hour costs at or below budgeted levels, to achieve or exceed budgeted operating results, and, for depot maintenance, to complete at least 95% of items worked on schedule.

Stock availability measures the percentage of Supply Management, Army (SMA) requisitions satisfied upon initial processing in the wholesale supply system. The SMA target for Stock Availability is 85 percent. FY 1996 and FY 1997 budget requirements are based on the 85 percent target. SMA is meeting/exceeding performance standards as indicated by the following actual performance data.

Quarter	Percent
1st, FY 1995	88.1
2d, FY 1995	87.2
3d, FY 1995	87.1
4th, FY 1995	86.5
1st, FY 1996	85.5

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**COST OF DEPOT LEVEL REPARABLES**

The cost of Depot Level Repairables (DLRs) in the Supply Management business area continues to decrease, consistent with the decrease in DLR demands and sales. The Army has fully implemented the Stock Funding Depot Level Repairables initiative and continues to exceed the target demand reduction goals. The reduced demands are the result, in part, of increased field level diagnostics and authorized repair of DLRs.

DEFENSE BUSINESS OPERATIONS FUND - ARMY  
REVENUE AND EXPENSES  
(Dollars in Millions)

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
Revenue:	12,208.3	12,474.1	10,897.8
Gross Sales	12,208.3	12,474.1	10,897.8
Operations	12,044.3	12,330.8	10,755.2
Capital Surcharge	93.7	67.7	69.6
Depreciation	70.3	75.7	72.9
Expenses:			
Cost of Material Sold from Inventory	6,410.9	6,681.4	5,666.6
Negotiated Purchases from Customers	2,612.4	2,665.0	2,402.2
Transportation	64.0	59.7	60.7
Salaries and Wages:	1,326.1	1,360.2	1,389.5
Military Personnel	19.4	21.3	16.4
Civilian Personnel	1,306.8	1,338.9	1,373.1
Materials, Supplies & Parts Used in Operations	553.4	587.0	468.4
Facility Repair & Maintenance	56.7	69.7	72.6
Depreciation/Amortization	70.3	75.7	72.9
Contracted Engineering Services	1.2	3.8	3.8
Lease Costs	20.4	22.7	23.5
Purchased Utilities	33.4	34.7	35.4
Purchased Communications	2.5	2.6	2.7
Equipment Maintenance by Contract	18.3	50.5	28.0
Fuel	13.5	14.6	14.0
Other Expenses	700.3	708.6	732.2
Cost of Goods Produced:	11,883.4	12,336.0	10,972.3
Change in WIP	24.6	(8.2)	(9.1)
Cost of Goods Sold:	11,858.8	12,344.2	10,981.4
Operating Result:	349.5	129.9	(83.6)
Less Capital Surcharge Reservation	93.7	67.7	69.6
Prior Year and Other Adjustments	46.7	0.0	0.0
Other Changes Affecting NOR/AOR		85.3	(189.3)
Net Operating Result:	209.1	(23.1)	36.1
Prior Year AOR (adjusted)	(222.0)	(12.9)	(36.1)
Accumulated Operating Results	(12.9)	(36.0)	0.0

DEFENSE BUSINESS OPERATIONS FUND - ARMY

SOURCE OF REVENUE (NEW ORDERS)  
(Dollars in Millions)

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
1. New Orders			
a. Orders from DoD Components:			
Army	7,089.8	7,115.6	6,060.5
Navy	189.6	156.0	133.2
Air Force	230.8	190.0	163.9
Marine Corps	94.0	96.1	73.0
DLA	122.4	128.8	113.4
Other DOD	689.8	713.0	687.4
b. Orders from other Fund Business Areas:	3,313.4	3,100.0	2,785.0
c. Total DoD	11,729.9	11,499.4	10,016.5
d. Other Orders:	455.7	566.1	518.4
Other Federal Agencies	49.8	50.0	45.2
Foreign Military Sales	376.4	477.9	437.6
Non-Federal Agencies	11.4	13.7	16.2
All Other	18.0	24.5	19.3
2. Carry-in Orders	1,367.3	1,176.6	967.9
3. Total Gross Orders	13,552.9	13,242.0	11,502.7
4. Change to Backlog	1,344.6	767.9	604.9
5. Total Gross Sales	12,208.3	12,474.1	10,897.8

DEFENSE BUSINESS OPERATIONS FUND - ARMY  
MATERIAL INVENTORY DATA  
(Dollars in Millions)  
FISCAL YEAR 1995

	<u>Total</u>	<u>Mobilization</u>	<u>----- Peacetime -----</u> <u>Operating</u>	<u>Other</u>
Materiel Inventory BOP	13,336.0	1,808.5	5,967.8	5,559.7
BOP Reclassification Changes	0.0	(92.8)	(1,383.5)	1,476.3
Price Changes	1,051.5	53.8	537.7	460.0
Receipts from Commercial Sources	6,126.7	73.6	6,028.9	24.2
Negotiated Purchase from Customers and Returns without Credit	6,572.6	0.0	1,693.8	4,878.8
Gross Sales	9,817.5	4.4	9,813.1	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	255.6	27.1	193.0	35.5
RETURNS TO SUPPLIERS (-)	(1,688.7)	0.0	0.0	(1,688.7)
TRANSFERS TO PROP. DISP. (-)	(2,923.2)	0.0	0.0	(2,923.2)
ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	(117.8)	(69.2)	(0.8)	(47.8)
OTHER (list)	(1,478.1)	(23.6)	(609.9)	(844.6)
TOTAL ADJUSTMENTS	(5,952.3)	(65.7)	(417.7)	(5,468.9)
Materiel Inventory EOP	11,317.0	1,773.0	2,613.9	6,930.1
ECONOMIC RETENTION (memo)				1,620.1
NUMERIC RETENTION (memo)				655.8
POTENTIAL EXCESS (memo)				39.5
Materiel Inventory on Order				
EOP (memo)	2,218.0	116.1	2,101.9	0.0

DEFENSE BUSINESS OPERATIONS FUND - ARMY  
MATERIAL INVENTORY DATA  
(Dollars in Millions)  
FISCAL YEAR 1996

	Total	Mobilization	---- Peacetime --- Operating	Other
Materiel Inventory BOP	11,317.0	1,773.0	2,613.9	6,930.1
BOP Reclassification Changes	(0.0)	33.6	1,770.9	(1,804.5)
Price Changes	389.3	44.0	177.5	167.8
Receipts from Commercial Sources	6,244.6	70.6	6,173.0	1.0
Negotiated Purchase from Customers and Returns without Credit	7,053.9	0.0	1,742.7	5,311.2
Gross Sales	10,129.4	2.0	10,127.4	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	(305.4)	(70.6)	(376.6)	141.8
RETURNS TO SUPPLIERS (-)	(1,492.7)	0.0	0.0	(1,492.7)
TRANSFERS TO PROP. DISP. (-)	(2,057.7)	(0.4)	0.0	(2,057.3)
ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	(2.4)	(8.8)	(5.4)	11.8
OTHER (list)	(27.3)	(8.9)	(27.0)	8.6
TOTAL ADJUSTMENTS	(3,885.5)	(88.7)	(409.0)	(3,387.8)
Materiel Inventory EOP	10,989.9	1,830.5	1,941.6	7,217.8
ECONOMIC RETENTION (memo)				5,052.5
POLICY RETENTION (memo)				2,021.0
POTENTIAL EXCESS (memo)				144.4
Materiel Inventory on Order				
EOP (memo)	2,128.8	87.3	2,041.5	0.0

DEFENSE BUSINESS OPERATIONS FUND - ARMY  
MATERIAL INVENTORY DATA  
(Dollars in Millions)  
FISCAL YEAR 1997

	Total	Mobilization	----- Peacetime ----- Operating	Other
Materiel Inventory BOP	10,989.9	1,830.5	1,941.6	7,217.8
BOP Reclassification Changes	0.0	55.0	1,674.5	(1,729.5)
Price Changes	(788.7)	(78.6)	(358.5)	(351.6)
Receipts from Commercial Sources	5,945.2	61.6	5,883.6	0.0
Negotiated Purchase from Customers and Returns without Credit	6,646.2	0.0	1,520.5	5,125.7
Gross Sales	8,569.6	2.0	8,567.6	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	(30.7)	(18.1)	(9.0)	(3.6)
RETURNS TO SUPPLIERS (-)	(1,603.1)	0.0	(138.5)	(1,464.6)
TRANSFERS TO PROP. DISP. (-)	(1,751.3)	0.0	0.0	(1,751.3)
ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	4.0	(3.2)	0.0	7.2
OTHER (list)	(43.4)	(7.5)	(43.1)	7.2
TOTAL ADJUSTMENTS	(3,424.5)	(28.8)	(190.6)	(3,205.1)
Materiel Inventory EOP	10,798.5	1,837.7	1,903.5	7,057.3
ECONOMIC RETENTION (memo)				4,940.1
POLICY RETENTION (memo)				1,976.0
POTENTIAL EXCESS (memo)				141.1
Materiel Inventory on Order				
EOP (memo)	2,647.0	0.0	2,647.0	0.0

OPERATING BUDGET



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SUPPLY MANAGEMENT

FUNCTIONAL DESCRIPTION

The Supply Management, Army (SMA) Business Area consists of a wholesale division and separate retail divisions for Army major commands. One other retail division is organized by function to support military requirements in the National Capital Region (Washington, DC). The wholesale subdivisions are organized by commodity with major subordinate commands managing assigned Army items and the Defense Logistics Agency (DLA)-managed prepositioned war reserves under Army control. Supply Management activities consist of the following:

**Retail Supply Operations**

Retail  
Divisions

FORSCOM:	Headquarters, U.S Army Forces Command
USAREUR:	Headquarters, U.S. Army Europe
TRADOC:	Headquarters, U.S. Army Training and Doctrine Command
USARPAC:	Headquarters, U.S. Army Pacific Command
USAEIGHT:	Headquarters, Eighth U.S. Army Korea
USARSO:	Headquarters, U.S. Army Southern Command
AMC-ID:	Headquarters, U.S. Army Materiel Command- Installation Division

Type of Materiel Managed:

Department of the Army (DA), DLA, and General Services Administration (GSA) items: items include repair parts; clothing; subsistence; medical supplies; industrial supplies; bulk and packaged Petroleum, Oil, and Lubricants (POL); general supplies; and ground support supplies.

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SUPPLY MANAGEMENT

In addition, DSS-W: Defense Supply Service - Washington, DC manages GSA items, administrative office supplies and equipment.

**Wholesale Supply Operations**

<u>Subdivisions</u>	<u>Type of Materiel Managed</u>
ATCOM U.S. Army Aviation and Troop Command	Aircraft and ground support items
CECOM U.S. Army Communications- Electronics Command	Communication and electronics items
MICOM U.S. Army Missile Command	Missile systems items
TACOM U.S. Army Tank and Automotive Command	Combat, automotive, and construction items
ACALA U.S. Army Armament and Chemical Acquisition and Logistics Activity	Weapons, special weapons, chemical and fire control items
AMC-MOB Headquarters, U.S. Army Materiel Command	DLA/GSA items: repair parts, clothing, subsistence, medical supplies, industrial supplies, ground forces supplies

**BUDGET HIGHLIGHTS**

Supply Management, Army (SMA) gross sales will decline in FY 97 based on Army downsizing, the continuation of the Consumable Item Transfer (CIT) to the Defense Logistics Agency, and price reductions.

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SUPPLY MANAGEMENT

	FY 1995	FY 1996	FY 1997
Gross Sales	9,817.5	10,129.4	8,569.6
Obligations for Materiel (includes Depot-Level Repair of DLRs)	5,762.8	5,953.3	5,293.5
Credit Returns	2,612.4	2,665.0	2,402.2

Prices for Army-managed items will be adjusted downward an average of 6.0 percent in FY 1997. The price decrease results from utilization of projected cash balances that are beyond the Army DBOF business area requirements. The ongoing efforts to reduce inventory levels, primarily leadtimes, have resulted in replenishment and repair actions which are less than sales.

Operating Results	FY 1995	FY 1996	FY 1997
Net Operating Results	56.7	6.5	(13.0)
Accumulated Operating Results	6.5	13.0	0.0

**WORKLOAD AND ECONOMIC ASSUMPTIONS**

The following presents general workload data and economic assumptions for the Wholesale Division. (\$ in Millions)

	FY 1995	FY 1996	FY 1997
SMA Line Items Managed	189,834	174,299	170,256
SMA Requisitions Received	\$4,381.6	\$4,205.6	\$4,024.9
- Receipts	390,646	327,802	376,478
- Issues	1,487,458	1,248,168	1,433,513
Contracts Executed	10,778	10,899	11,489
SMA Customer Rate Change	8.0%	5.4%	(6.0%)
SMA Purchase Inflation	1.7%	2.0%	2.2%
<b><u>UNIT COST GOAL</u></b>			
Wholesale	\$ .81	\$ .81	\$ .93
Retail	\$1.00	\$ .98	\$1.00
<b><u>PERSONNEL</u></b>			
Civilian End Strength	4,152	4,100	3,846
Civilian Workyears	4,530	4,287	3,974
Military End Strength	12	22	15
Military Workyears	52	24	18
<b><u>INVENTORY</u></b>	\$11,317.0	\$10,989.9	\$10,798.5

DEFENSE BUSINESS OPERATIONS FUND - ARMY  
FY 1997 BUDGET ESTIMATE

SUPPLY MANAGEMENT

Downsizing of the Army, the Total Army Inventory Management program, and our efforts to reduce leadtimes results in lower inventory levels required to support training and readiness.

SUPPLY MANAGEMENT STOCK AVAILABILITY

Stock Availability measures the percentage of Supply Management, Army (SMA) requisitions satisfied upon initial processing in the wholesale supply system. The SMA target for Stock Availability is 85 percent demand satisfaction. FY 1996 and FY 1997 budget requirements are based on the 85 percent target. Data provided reflects FY 1995 and first quarter FY 1996 actual performance.

Quarter	Percent
1st FY 1995	88.1
2d FY 1995	87.2
3d FY 1995	87.1
4th FY 1995	86.5
1st FY 1996	85.5

MAJOR PROGRAMMATIC ADJUSTMENTS

Significant programmatic adjustments in the FY 1997 submission include: reductions of supply systems costs resulting from the Total Army Inventory Management program; reductions in workload driven principally by force structure changes; reductions in the need to buy pipeline replacements based on our efforts to decrease leadtimes; changes in the consumptive behavior of units as a result of the impacts of stock funding of depot-level reparable and re-equipping efforts which both result in lower demand for stock fund-managed materiel.

DEFENSE BUSINESS OPERATIONS FUND - ARMY  
SUPPLY MANAGEMENT, ARMY  
REVENUE AND EXPENSES  
(Dollars in Millions)

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
Revenue:	9,817.5	10,129.4	8,569.6
Gross Sales	9,817.5	10,129.4	8,569.6
Operations	9,758.2	10,065.1	8,505.0
Capital Surcharge	46.4	51.2	52.6
Depreciation	12.9	13.1	12.0
Expenses:			
Cost of Material Sold from Inventory	6,410.9	6,681.4	5,666.6
Negotiated Purchases from Customers	2,612.4	2,665.0	2,402.2
Transportation	47.3	44.7	45.4
Salaries and Wages:	247.9	237.2	226.4
Military Personnel	2.3	1.3	1.1
Civilian Personnel	245.6	235.9	225.3
Materials, Supplies & Parts Used in Operations	8.0	8.0	8.0
Facility Repair & Maintenance	2.4	2.7	4.8
Depreciation/Amortization	12.9	13.1	12.0
Contracted Engineering Services	1.1	0.9	0.9
Lease Costs	8.7	7.2	8.8
Purchased Utilities	3.0	4.0	4.0
Purchased Communications	0.2	0.3	0.3
Equipment Maintenance by Contract	4.7	7.9	8.5
Fuel	0.0	0.0	0.0
Other Expenses	354.9	314.0	331.4
Total Expenses	9,714.4	9,986.4	8,719.3
Change in WIP	0.0	0.0	0.0
Cost of Goods Sold:	9,714.4	9,986.4	8,719.3
Operating Result:	103.1	143.0	(149.7)
Less Capital Surcharge Reservation	46.4	51.2	52.6
Prior Year and Other Adjustments	0.0	0.0	0.0
Other Changes Affecting NOR/AOR	0.0	85.3	(189.3)
Net Operating Result	56.7	6.5	(13.0)
Prior Year AOR (adjusted)	(50.2)	6.5	13.0
Accumulated Operating Results	6.5	13.0	(0.0)

DEFENSE BUSINESS OPERATIONS FUND - ARMY  
SUPPLY MANAGEMENT  
SOURCE OF REVENUE (NEW ORDERS)  
(Dollars in Millions)

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
<b>1. New Orders</b>			
a. Orders from DoD Components:			
Army	5,654.1	5,740.0	4,975.6
Navy	97.1	77.1	66.3
Air Force	187.7	156.2	131.6
Marine Corps	92.3	86.3	69.9
DLA	86.9	91.8	78.3
Other DOD	577.9	598.4	568.7
b. Orders from other Fund Business Areas:	2,911.8	2,749.9	2,367.3
c. Total DoD	9,607.8	9,499.6	8,257.8
d. Other Orders:	377.7	429.9	376.0
Other Federal Agencies	44.1	42.0	36.1
Foreign Military Sales	315.5	363.3	320.6
Non-Federal Agencies	0.0	0.0	0.0
All Other	18.0	24.5	19.3
<b>2. Carry-in Orders</b>	0.0	(0.0)	0.0
<b>3. Total Gross Orders</b>	9,985.5	9,929.5	8,633.8
<b>4. Change to Backlog</b>	168.0	(199.9)	64.2
<b>5. Total Gross Sales</b>	9,817.5	10,129.4	8,569.6

DEFENSE BUSINESS OPERATIONS FUND  
 SUPPLY MANAGEMENT, ARMY  
 CHANGES IN COSTS OF OPERATIONS  
 (DOLLARS IN MILLIONS)

FY 1995 Actual Cost	9,714.4
FY 1996 Estimate in President's Budget	9,372.4
Program Changes:	
Sales Increase	614.0
FY 1996 Current Estimate	9,986.4
Pricing Adjustments:	
Civilian Personnel-Pay	(0.3)
Inflation less than expected	(213.2)
Price reduction	(229.4)
Cash Adjustment (FY 96)	(70.0)
DFAS	(8.0)
Distribution Depot	24.8
AOR recovery	(35.0)
Program Changes:	
Civilian Personnel	(4.8)
Sales Decrease	(447.2)
FY 95 year end surge	(100.0)
Operation Joint Endeavor	(184.0)
FY 1997 Estimate	8,719.3

SUPPLY MANAGEMENT, ARMY  
MATERIEL INVENTORY DATA  
(Dollars in Millions)  
FISCAL YEAR 1995

	<u>Total</u>	<u>Mobilization</u>	<u>----- Peacetime -----</u> <u>Operating</u>	<u>Other</u>
Materiel Inventory BOP	13,336.0	1,808.5	5,967.8	5,559.7
BOP Reclassification Changes	0.0	(92.8)	(1,383.5)	1,476.3
Price Changes	1,051.5	53.8	537.7	460.0
Receipts from Commercial Sources	6,126.7	73.6	6,028.9	24.2
Negotiated Purchase from Customers and Returns without Credit	6,572.6	0.0	1,693.8	4,878.8
Gross Sales	9,817.5	4.4	9,813.1	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	255.6	27.1	193.0	35.5
RETURNS TO SUPPLIERS (-)	(1,688.7)	0.0	0.0	(1,688.7)
TRANSFERS TO PROP. DISP. (-)	(2,923.3)	(0.0)	(0.0)	(2,923.2)
ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	(117.8)	(69.2)	(0.8)	(47.8)
OTHER (list)	(1,478.1)	(23.6)	(609.9)	(844.6)
TOTAL ADJUSTMENTS	(5,952.3)	(65.7)	(417.7)	(5,468.9)
Materiel Inventory EOP	11,317.0	1,773.0	2,613.9	6,930.1
ECONOMIC RETENTION (memo)				1,620.1
NUMERIC RETENTION (memo)				655.8
POTENTIAL EXCESS (memo)				39.5
Materiel Inventory on Order				
EOP (memo)	2,218.0	116.1	2,101.9	0.0



SUPPLY MANAGEMENT, ARMY  
MATERIAL INVENTORY DATA  
(Dollars in Millions)  
FISCAL YEAR 1996

	<u>Total</u>	<u>Mobilization</u>	<u>----- Peacetime -----</u> <u>Operating</u>	<u>Other</u>
Materiel Inventory BOP	11,317.0	1,773.0	2,613.9	6,930.1
BOP Reclassification Changes	(0.0)	33.6	1,770.9	(1,804.5)
Price Changes	389.3	44.0	177.5	167.8
Receipts from Commercial Sources	6,244.6	70.6	6,173.0	1.0
Negotiated Purchase from Customers and Returns without Credit	7,053.9	0.0	1,742.7	5,311.2
Gross Sales	10,129.4	2.0	10,127.4	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	(305.4)	(70.6)	(376.6)	141.8
RETURNS TO SUPPLIERS (-)	(1,492.7)	0.0	0.0	(1,492.7)
TRANSFERS TO PROP. DISP. (-)	(2,057.7)	(0.4)	0.0	(2,057.3)
ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	(2.4)	(8.8)	(5.4)	11.8
OTHER (list)	(27.3)	(8.9)	(27.0)	8.6
TOTAL ADJUSTMENTS	(3,885.5)	(88.7)	(409.0)	(3,387.8)
Materiel Inventory EOP	10,989.9	1,830.5	1,941.6	7,217.8
ECONOMIC RETENTION (memo)				5,052.5
POLICY RETENTION (memo)				2,021.0
POTENTIAL EXCESS (memo)				144.4
Materiel Inventory on Order				
EOP (memo)	2,128.8	87.3	2,041.5	0.0

SUPPLY MANAGEMENT, ARMY  
MATERIAL INVENTORY DATA  
(Dollars in Millions)  
FISCAL YEAR 1997

	Total	Mobilization	----- Peacetime ----- Operating	Other
Materiel Inventory BOP	10,989.9	1,830.5	1,941.6	7,217.8
BOP Reclassification Changes	0.0	55.0	1,674.5	(1,729.5)
Price Changes	(788.7)	(78.6)	(358.5)	(351.6)
Receipts from Commercial Sources	5,945.2	61.6	5,883.6	0.0
Negotiated Purchase from Customers and Returns without Credit	6,646.2	0.0	1,520.5	5,125.7
Gross Sales	8,569.6	2.0	8,567.6	0.0
Materiel Inventory Adjustments				
CAPITALIZATIONS + OR (-)	(30.7)	(18.1)	(9.0)	(3.6)
RETURNS TO SUPPLIERS (-)	(1,603.1)	0.0	(138.5)	(1,464.6)
TRANSFERS TO PROP. DISP. (-)	(1,751.3)	0.0	0.0	(1,751.3)
ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	4.0	(3.2)	0.0	7.2
OTHER (list)	(43.4)	(7.5)	(43.1)	7.2
TOTAL ADJUSTMENTS	(3,424.5)	(28.8)	(190.6)	(3,205.1)
Materiel Inventory EOP	10,798.5	1,837.7	1,903.5	7,057.3
ECONOMIC RETENTION (memo)				4,940.1
POLICY RETENTION (memo)				1,976.0
POTENTIAL EXCESS (memo)				141.1
Materiel Inventory on Order				
EOP (memo)	2,647.0	0.0	2,647.0	0.0

SUPPLY MANAGEMENT, ARMY  
FUEL DATA  
(Dollars in Millions)

	PROCURED FROM DFSC			PROCURED BY SERVICE			
PRODUCT	BARRELS (MILLIONS)	COST PER BARREL (\$)	EXTENDED PRICE (\$ MIL)	BARRELS (MILLIONS)	COST PER BARREL (\$)	EXTENDED PRICE (\$ MIL)	STABILIZED PRICE
FY 1995							
AVGAS	0.000	88.62	0.0	0.001	88.62	0.1	
MOGAS (L)	0.007	35.28	0.2	0.000	35.28	0.0	
MOGAS (U)	0.458	28.56	13.1	0.107	28.56	3.1	
JP-4	0.695	29.82	20.7	0.088	29.82	2.6	
JP-5	0.233	30.66	7.1	0.000	30.66	0.0	
DISTILLATES	0.386	28.56	11.0	0.426	28.56	12.2	
RESIDUALS	0.141	17.64	2.5	0.247	17.64	4.4	
GASOHOL	0.001	28.14	0.0	0.000	28.14	0.0	
JP-8	0.502	29.82	15.0	0.078	29.82	2.3	
TOTAL	2.423	28.77	69.7	0.947	26.00	24.6	0.0
FY 1996							
AVGAS	0.000	94.92	0.0	0.001	94.92	0.1	
MOGAS (L)	0.000	37.80	0.0	0.000	37.80	0.0	
MOGAS (U)	0.503	30.66	15.4	0.107	30.66	3.3	
JP-4	0.037	31.92	1.2	0.088	31.92	2.8	
JP-5	0.165	32.76	5.4	0.000	32.76	0.0	
DISTILLATES	0.444	30.66	13.6	0.423	30.66	13.0	
RESIDUALS	0.141	18.48	2.6	0.250	18.48	4.6	
GASOHOL	0.001	30.24	0.0	0.000	30.24	0.0	
JP-8	1.172	31.92	37.4	0.071	31.92	2.3	
TOTAL	2.463	30.72	75.7	0.940	27.70	26.0	0.0
FY 1997							
AVGAS	0.000	99.12	0.0	0.001	99.12	0.1	
MOGAS (L)	0.007	38.22	0.3	0.000	38.22	0.0	
MOGAS (U)	0.463	31.08	14.4	0.107	31.08	3.3	
JP-4	0.035	32.34	1.1	0.054	32.34	1.7	
JP-5	0.085	33.18	2.8	0.000	33.18	0.0	
DISTILLATES	0.475	31.08	14.8	0.409	31.08	12.7	
RESIDUALS	0.141	18.90	2.7	0.149	18.90	2.8	
GASOHOL	0.001	30.66	0.0	0.000	30.66	0.0	
JP-8	1.198	32.34	38.7	0.069	32.34	2.2	
TOTAL	2.405	31.11	74.8	0.789	29.06	22.9	0.0

SUPPLY MANAGEMENT, ARMY  
SUMMARY BY DIVISION  
(Dollars in Millions)

DIVISION	NET CUSTOMER ORDERS	NET SALES	OBLIGATION TARGETS OPERATING	MOB	TARGET TOTAL
RETAIL					
FORSCOM					
FY 1995	1,598.5	1,611.3	1,580.4		1,580.4
FY 1996	1,673.5	1,815.3	1,740.8		1,740.8
FY 1997	1,309.0	1,340.1	1,345.4		1,345.4
USAREUR					
FY 1995	573.1	548.4	568.3		568.3
FY 1996	752.0	768.6	773.2		773.2
FY 1997	551.7	568.1	550.5		550.5
TRADOC					
FY 1995	949.3	961.7	1,006.4		1,006.4
FY 1996	962.6	991.6	980.7		980.7
FY 1997	832.8	828.6	856.7		856.7
USAEIGHT					
FY 1995	278.9	293.1	293.3		293.3
FY 1996	327.4	323.2	325.2		325.2
FY 1997	280.2	278.7	285.7		285.7
USARPAC					
FY 1995	247.4	239.0	244.2		244.2
FY 1996	224.7	236.0	229.2		229.2
FY 1997	191.1	193.5	193.7		193.7
USARSO					
FY 1995	64.9	66.4	64.9		64.9
FY 1996	53.4	54.3	53.3		53.3
FY 1997	46.4	46.2	46.5		46.5
AMC-ID					
FY 1995	306.2	330.7	321.3		321.3
FY 1996	326.2	342.7	337.0		337.0
FY 1997	361.7	369.9	365.3		365.3
DSS-W					
FY 1995	24.6	17.9	23.2		23.2
FY 1996	26.3	25.3	24.0		24.0
FY 1997	37.1	35.6	34.3		34.3

SUMMARY BY DIVISION  
(CONTINUED)

DIVISION	NET CUSTOMER ORDERS	NET SALES	OBLIGATION TARGETS		TARGET TOTAL			
			OPERATING	MOB				
WHOLESALE CONSUMABLES								
ACALA								
FY 1995	200.5	169.9	89.4		89.4			
FY 1996	174.8	175.1	85.9		85.9			
FY 1997	155.2	139.6	88.7		88.7			
ATCOM								
FY 1995	260.7	221.0	135.3		135.3			
FY 1996	166.2	182.4	118.5		118.5			
FY 1997	97.4	109.0	105.4		105.4			
CECOM								
FY 1995	225.6	219.0	130.0		130.0			
FY 1996	208.5	198.5	82.2		82.2			
FY 1997	166.6	156.3	83.8		83.8			
MICOM								
FY 1995	29.5	30.9	24.9		24.9			
FY 1996	31.3	30.6	23.9		23.9			
FY 1997	32.8	34.6	31.3		31.3			
TACOM								
FY 1995	422.8	388.8	167.2		167.2			
FY 1996	325.9	324.4	177.7		177.7			
FY 1997	295.6	270.3	218.2		218.2			
REPARABLES								
ACALA								
FY 1995	160.9	178.2	66.9		66.9			
FY 1996	159.4	162.5	73.8		73.8			
FY 1997	146.4	138.5	71.6		71.6			
ATCOM								
FY 1995	912.4	843.3	408.5		408.5			
FY 1996	767.1	759.2	375.1		375.1			
FY 1997	706.6	698.9	382.7		382.7			
CECOM								
FY 1995	336.7	339.5	309.6		309.6			
FY 1996	348.8	343.8	207.1		207.1			
FY 1997	290.0	281.4	200.7		200.7			

SUMMARY BY DIVISION  
(CONTINUED)

DIVISION	NET CUSTOMER ORDERS	NET SALES	OBLIGATION OPERATING	TARGETS MOB	TARGET TOTAL
MICOM					
FY 1995	324.2	282.8	169.1		169.1
FY 1996	305.6	300.8	173.1		173.1
FY 1997	282.5	273.6	211.8		211.8
TACOM					
FY 1995	406.3	412.5	150.3		150.3
FY 1996	399.6	398.9	172.6		172.6
FY 1997	420.5	376.5	221.2		221.2
AMC-MOB					
FY 1995	6.2	6.6	9.6		9.6
FY 1996	7.2	7.2	7.1		7.1
FY 1997	7.3	7.3	7.3		7.3
COST OF OPS					
FY 1995			678.2		678.2
FY 1996			624.9		624.9
FY 1997			619.7		619.7
CAPITAL					
FY 1995			19.0		19.0
FY 1996			15.5		15.5
FY 1997			26.9		26.9
TOTAL					
FY 1995	7,328.7	7,161.0	6,460.1	0.0	6,460.1
FY 1996	7,240.5	7,440.4	6,600.8	0.0	6,600.8
FY 1997	6,210.9	6,146.7	5,947.4	0.0	5,947.4

SUPPLY MANAGEMENT, ARMY  
OPERATING REQUIREMENTS  
BY WEAPON SYSTEM/CATEGORY  
(Dollars in Millions)

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
WEAPON SYSTEM/CATEGORY			
CHEMICAL DEFENSE EQUIPMENT	34.0	30.1	24.1
OTHER ARMAMENT, MUNITIONS AND CHEMICALS	39.0	29.0	36.0
AH-64	123.1	133.3	171.3
UH-60	205.4	153.9	150.7
OH-58D	46.3	37.2	44.3
CH-47D	40.8	39.8	35.3
T701C ENGINES	12.1	25.1	23.6
AIR DELIVERY/AVIATION/TROOP EQUIPMENT	153.9	207.9	162.4
MSE	29.5	20.4	19.1
NIGHT VISION EQUIPMENT	31.7	22.4	20.3
BATTERIES	34.9	37.3	39.1
OTHER COMMUNICATIONS/ ELECTRONICS	315.0	157.3	171.2
MLRS	26.4	19.7	26.1
PATRIOT	79.0	90.8	96.1
OTHER MISSILES SYSTEMS	59.8	36.3	49.0
M1 SERIES TANK	122.4	150.0	171.2
M88 RECOVERY VEHICLE	24.0	26.8	33.8
M109 HOWITZER	27.7	30.9	45.2
M198 HOWITZER	7.0	4.3	4.7
M113 FOV	23.9	24.3	29.5
BRADLEY FIGHTING VEHICLE	68.7	61.2	77.4
HMMWV	22.4	22.4	27.3
TIRES	34.2	34.8	44.0
OTHER TANK & AUTOMOTIVE	90.0	94.7	113.7
TOTAL	1,651.2	1,489.9	1,615.4

SUPPLY MANAGEMENT, ARMY  
WHOLESALE ONLY  
CUSTOMER PRICE CHANGE

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
1. Gross Sales at Cost	3,337.0	3,169.6	3,031.8
2. Less Materiel Inflation Adjustment	56.7	98.3	65.3
3. Revised Gross Sales at Cost	3,280.3	3,071.3	2,966.5
4. Surcharge (dollars)	794.2	839.2	506.9
5. Change to Customers			
a. Previous Years Surcharge (rate)	17.6%	23.8%	26.5%
b. This year's Surcharge divided by line 3 above (\$)	25.9%	30.5%	18.9%
c. Percent change to customer	8.0%	5.4%	-6.0%



DEFENSE BUSINESS OPERATIONS FUND - ARMY  
FY 1997 BUDGET ESTIMATE

ARMY DEPOT MAINTENANCE - OTHER

FUNCTIONAL DESCRIPTION

The Depot Maintenance - Other business encompasses depot maintenance; ammunition storage, maintenance and demilitarization; base support host; and some residual depot supply operations performed by depots operating under the Industrial Operations Command (IOC). Depot maintenance includes the overhaul, rebuild, conversion, renovation, modification, repair, inspection and test, manufacture, fabrication and reclamation of materiel as well as maintenance support services.

BUSINESS AREA COMPOSITION

Anniston Army Depot	Anniston, AL
Bluegrass Army Depot	Richmond, KY
Corpus Christi Army Depot	Corpus Christi, TX
Letterkenny Army Depot	Chambersburg, PA
Red River Army Depot	Texarkana, TX
Tobyhanna Army Depot	Tobyhanna, PA
Tooele Army Depot	Tooele, UT
Sacramento Army Depot Activity	Sacramento, CA
Seneca Army Depot Activity	Romulus, NY
Sierra Army Depot Activity	Herlong, CA
Pueblo Army Depot Activity	Pueblo, CO
Savanna Army Depot Activity	Savanna, IL
Umatilla Army Depot Activity	Hermiston, OR

Earlier Base Realignment and Closure (BRAC) initiatives closed Sacramento Army Depot (end of FY 1995), ended the maintenance mission at Tooele Army Depot, and continued realignment/consolidation of the tactical missile mission to Letterkenny Army Depot and the rotary wing workload from the Naval Air Station, Pensacola to Corpus Christi Army Depot. BRAC 95 added the closure of Savanna and Seneca and the realignment of Red River, Letterkenny and Sierra.

DEFENSE BUSINESS OPERATIONS FUND - ARMY  
FY 1997 BUDGET ESTIMATE

ARMY DEPOT MAINTENANCE - OTHER

**BUDGET HIGHLIGHTS**

The IOC will consolidate management of the Army DBOF Depot Maintenance - Other (formerly managed by Depot Systems Command (DESCOM)) and elements of the former Army Armament, Munitions and Chemical Command (AMCCOM) including DBOF Depot Maintenance - Ordnance. The IOC will command all Army depots, depot activities, ammunition plants, three arsenals, and other Army industrial activities. This consolidation will result in savings in management headquarters costs to the Depot Maintenance - Other business area.

The chemical demilitarization and storage mission transferred to the Chemical and Biological Defense Command (CBDCOM) effective fiscal year 1996. The CBDCOM is a tenant on the five affected depots/depot activities and will reimburse the Army Depot Maintenance - Other business area for base support costs.

**Personnel:**

	FY 1995	FY 1996	FY 1997
Civilian End Strength	16,127	15,736	14,941
Civilian Work Years (Regular)	17,429	15,900	16,218
Military End Strength	421	234	121
Military Work Years	385	221	112

Civilian manpower strengths and workyears, excluding overtime, continue to decrease due to overall downsizing, transfer of the chemical mission to CBDCOM and BRAC-related reductions at Tooele and Sacramento Army Depots.

Elimination of the special weapons mission at Sierra Army Depot and the transfer of military to the CBDCOM reduces the military end strengths.

DEFENSE BUSINESS OPERATIONS FUND - ARMY  
FY 1997 BUDGET ESTIMATE

ARMY DEPOT MAINTENANCE - OTHER

**Costs, Operating Results (OR), and Rates:**

	FY 1995	FY 1996	FY 1997
Cost of Goods & Services Sold	1,574.7	1,643.0	1,596.3
Net Operating Results	109.5	(26.1)	47.6
Accumulated Operating Results	(21.5)	(47.6)	0
Customer Revenue Rate Per DLH	\$109.51	\$84.24	\$90.07
% Rate Change from Prior Year	15.6	(23.1)	6.9
Unit Costs (\$/DLH)	\$82.12	\$89.12	\$91.65
DLH (000)	19,175.0	18,435.1	17,417.0

**Costs.** Total costs decline during the budget years as a result of mission transfers, elimination of the special weapons mission and BRAC-related workload reductions. The rates in FY 1997 are set to achieve a zero Accumulated Operating Result.

Unit Costs increase by 11.6% between FY 1995 and FY 1997 because of spreading fixed overhead costs over a decreasing direct labor hour base.

The customer revenue rate per DLH is reflective of the attempt to bring the budget year's accumulated operating results to zero. The rate changes are made up of the following factors:

	FY 1997
Inflation and pricing changes	2.4%
Succeeding year inflation for carryover	14.0%
AOR = "0"	(3.0%)
Depreciation	1.87%
Workload mix	4.1%
Unutilized plant capacity policy change	3.1%
Productivity initiative	(1.7%)
Military Personnel at Sierra	(.2%)

DEFENSE BUSINESS OPERATIONS FUND - ARMY  
FY 1997 BUDGET ESTIMATE

ARMY DEPOT MAINTENANCE - OTHER

**Performance Indicators.** Performance effectiveness indicators for this business area are labor hour costs, net operating results and schedule conformance. The goals for these are to execute labor hour costs at or below budgeted levels, to achieve or exceed budgeted operating results, and to complete at least 95 percent of items worked on schedule.

**Economies and Efficiencies:** Productivity savings are primarily a function of the merger of DESCOM and AMCCOM to form the IOC, capital investment, and value engineering and methods and standards.

**Capital Program Authority:** The capital budget for Depot Maintenance - Other declined sharply in FY 1995 due to a Congressional cap on DBOF authority. The FY 1996 program increases to accommodate workload changes and ADPE upgrades. The FY 1997 program includes a logistics initiative to reduce annual operating and support costs of weapons systems. This new category, Reliability, Maintainability and Supportability Modification, is funded at \$24.8 million.

DEFENSE BUSINESS OPERATIONS FUND - ARMY  
DEPOT MAINTENANCE - OTHER  
REVENUE AND EXPENSES  
(Dollars in Millions)

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
Revenue:	1,775.0	1,633.4	1,660.9
Gross Sales	1,775.0	1,633.4	1,660.9
Operations	1,688.6	1,574.3	1,602.2
Capital Surcharge	47.3	16.5	17.0
Depreciation	39.1	42.6	41.7
Expenses:			
Cost of Material Sold from Inventory			
Negotiated Purchases from Customers			
Transportation	16.0	14.2	14.6
Salaries and Wages:	794.9	777.7	822.8
Military Personnel	14.5	8.6	5.3
Civilian Personnel	780.3	769.2	817.5
Materials, Supplies & Parts Used in Operations	454.6	490.3	379.3
Facility Repair & Maintenance	17.6	34.1	35.1
Depreciation/Amortization	39.1	42.6	41.7
Contracted Engineering Services	0.1	0.9	0.9
Lease Costs	10.5	9.4	8.9
Purchased Utilities	18.5	18.6	19.2
Purchased Communications	2.0	1.0	1.0
Equipment Maintenance by Contract	10.9	14.0	14.3
Fuel	11.4	11.7	11.1
Other Expenses	243.7	233.1	252.8
Cost of Goods Produced:	1,619.3	1,647.6	1,601.7
Change in WIP	44.6	4.6	5.4
Cost of Goods Sold:	1,574.7	1,643.0	1,596.3
Operating Result:	200.3	(9.6)	64.6
Less Capital Surcharge Reservation	47.3	16.5	17.0
Extraordinary Items:	43.5		
Prior Year and Other Adjustments	43.5		
Net Operating Result:	109.5	(26.1)	47.6
Prior Year AOR	(131.0)	(21.5)	(47.6)
Accumulated Operating Results	(21.5)	(47.6)	0.0

DEFENSE BUSINESS OPERATIONS FUND - ARMY  
 ARMY DEPOT MAINTENANCE - OTHER  
 SOURCE OF REVENUE (NEW ORDERS)  
 (Dollars in Millions)

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
<b>1. New Orders</b>			
a. Orders from DoD Components:			
Army	1,083.0	904.0	769.1
Navy	80.1	75.7	62.6
Air Force	40.1	33.8	32.3
Marine Corps	1.5	1.8	1.8
DLA	35.3	36.9	35.0
Other DOD	70.1	42.9	66.6
b. Orders from other Fund Business Areas:	358.0	277.9	359.8
c. Total DoD	1,668.2	1,373.0	1,327.3
d. Other Orders:	71.9	94.4	103.6
Other Federal Agencies	4.4	7.9	8.4
Foreign Military Sales	57.0	80.5	89.5
Non-Federal Agencies	10.5	6.0	5.7
All Other	0.0	0.0	0.0
<b>2. Carry-in Orders</b>	734.3	699.4	533.4
<b>3. Total Gross Orders</b>	2,474.4	2,166.8	1,964.3
<b>4. Change to Backlog</b>	699.4	533.4	303.4
<b>5. Total Gross Sales</b>	1,775.0	1,633.4	1,660.9

DEFENSE BUSINESS OPERATIONS FUND  
ARMY DEPOT MAINTENANCE, OTHER  
CHANGES IN COSTS OF OPERATIONS  
(DOLLARS IN MILLIONS)

FY 1995 Actual Cost		1,619.3
FY 1996 Estimate in President's Budget		1,668.9
Estimated Impact in FY 1996 of Actual FY 1995 Experience		
Depreciation		15.9
Contracted Engineering Services		(27.3)
Purchases Utilities		(3.2)
Facility Repair Change		(3.7)
Pricing Adjustments:		
General Purchase Inflation		(3.0)
FY 1996 Current Estimate		1,647.6
Pricing Adjustments:		
Annualization of Prior Year Pay Raises		3.8
FY 1996 Pay Raise:		17.1
Civilian Personnel	17.1	
Military Personnel	0.0	
Fund Price Changes		11.3
General Purchase Inflation		6.9
Productivity Initiatives and Other Efficiencies.		(16.7)
Program Changes:		(68.4)
Consolidation of IOC HQ		(2.3)
Military Personnel, MPs at Sierra Army Depot		(2.3)
Elimination of Maintenance Mission at Tooele		(6.5)
Workload Changes		(57.3)
FY 1997 Estimate		1,601.7

DEFENSE BUSINESS OPERATIONS FUND - ARMY  
FY 1997 BUDGET ESTIMATE

ARMY DEPOT MAINTENANCE - ORDNANCE

FUNCTIONAL DESCRIPTION

The Depot Maintenance--Ordnance manufacturing and ordnance activities are managed by the US Army Industrial Operations Command (IOC). They manufacture, renovate, and demilitarize material for all branches of DoD, as well as provide depot operations, depot maintenance, set assembly, tenant support, and national procurement services for thin and thick walled cannons. They are responsible for logistics support management, including follow-on procurement, production, maintenance, engineering and integrated logistics support management. They also furnish engineering services in support of production, industrial management, value engineering, configuration management, international logistics, tools and equipment engineering, product assurance, transportation and traffic management for assigned systems and materiel.

BUSINESS AREA COMPOSITION

The business area is composed of five installations:

Pine Bluff Arsenal	Pine Bluff, Arkansas
Rock Island Arsenal	Rock Island, Illinois
Watervliet Arsenal	Watervliet, New York
Crane Army Ammunition Activity	Crane, Indiana
McAlester Army Ammunition Plant	McAlester, Oklahoma

The IOC will consolidate management of the Army DBOF Depot Maintenance--Other (formerly managed by Depot Systems Command (DESCOM)), and elements of the former Army Armament, Munitions and Chemical Command (AMCCOM), including DBOF Depot Maintenance--Ordnance. The IOC will command all Army depots, depot activities, ammunition plants, three arsenals, and other Army industrial activities. This consolidation will result in savings in management headquarters costs to the Depot Maintenance - Ordnance business area.

The budget reflects the depot tiering concept, which separates depots into three tiers according to their strategic importance to the logistics power projection of the US Army and other services.



DEFENSE BUSINESS OPERATIONS FUND - ARMY  
FY 1997 BUDGET ESTIMATE

ARMY DEPOT MAINTENANCE - ORDNANCE

Tier I sites serve as the active core of the ammunition storage and distribution system, storing, receiving and issuing training ammunition and war reserves to meet critical ammunition needs in the first 30 days of a conflict. Ordnance installations Crane Army Ammunition Activity and McAlester Army Ammunition Plant, as well as Blue Grass and Tooele Army Depots, were selected as Tier I facilities.

Tier II sites, the "Cadre Level", augment Tier I sites, storing war reserve materiel for the second 30 days (and following) of conflict. They also perform maintenance and demilitarization services.

Tier III "Caretaker" sites will store decreasing amounts of excess and obsolete items and perform demilitarization until 2002, by which time the Depot Tiering Concept envisions they will not longer store ammunition.

During fiscal year 1996, the depot maintenance business areas decapitalized the chemical demilitarization and storage mission to the U.S. Army Chemical Biological Defense Command (CBDCOM). The CBDCOM is considered a tenant on the affected installations and will reimburse the business areas for base support costs.

BUDGET HIGHLIGHTS

**Personnel:**

	FY 1995	FY 1996	FY 1997
Civilian End Strength	5,715	5,474	5,462
Civilian Work Years (Regular)	5,550	5,498	5,452
Military End Strength	59	27	24
Military Work Years	50	25	23

The budget displays an overall downward trend in manpower levels consistent with current workload projections. Reduced manpower levels will be achieved through continued VERA/VSIP and hiring freezes. Civilian end strength decreases by 4.4% from 5,715 in FY 1995 to 5,462 by the end of FY 1997. These reductions are a result of efforts to align the work force with decreasing workload.

DEFENSE BUSINESS OPERATIONS FUND - ARMY  
FY 1997 BUDGET ESTIMATE

ARMY DEPOT MAINTENANCE - ORDNANCE

**Costs, Operating Results (OR), and Rates:**

	FY 1995	FY 1996	FY 1997
Cost of Goods & Services Sold	569.7	541.0	528.1
Net Operating Results	42.8	(3.5)	1.5
Accumulated Operating Results	2.0	(1.5)	-0-
Customer Revenue Rate Per DLH	\$98.73	\$84.78	\$88.93
% Rate Change from Prior Year	25.8%	(14.1%)	4.9%
Unit Costs (\$/DLH)	\$89.00	\$92.04	\$92.23
DLH (000)	6,401.0	5,877.7	5,726.0

**Costs.** Total costs decline 7.3% from FY 1995 to FY 1997, primarily due to decreasing workload as a result of overall DoD downsizing. Military and civilian strengths decline in FY 1996 due to Toxic Chemical mission transfer to CBDCOM.

**Unit Cost.** Despite decreasing costs, reduced total direct labor hours (DLHs) cause unit costs to rise from \$89.00/DLH in FY 1995 to \$92.23/DLH in FY 1997--the result of spreading fixed costs over diminished direct labor workload.

**Net Operating Results.** The DBOF operates on a break-even basis over the long term. The Army sets annual revenue rates to achieve positive or negative results, balancing Accumulated Operating Results to zero in the budget year. The business area's effectiveness is measured by comparing performance to goal, rather than simple calculation of net operating results.

**Accumulated Operating Result Recovery.** The customer revenue rate per DLH is reflective of the attempt to bring budget years' accumulated operating results to zero. The rate change of 4.9% in FY 1997 is made up of the following factors:

	FY 1997
Inflation and pricing changes	1.9%
Succeeding year inflation for carryover	3.2%
AOR = "0"	(2.1%)
Depreciation	(12.7%)
Workload mix	(20.9%)
Unutilized plant capacity policy change	38.5%
Productivity initiatives	(3.0%)

DEFENSE BUSINESS OPERATIONS FUND - ARMY  
FY 1997 BUDGET ESTIMATE

ARMY DEPOT MAINTENANCE - ORDNANCE

Productivity Initiatives/Cost Reductions. Depot Maintenance--Ordnance has implemented plans to comply with directed productivity targets. Initiatives include capital investment, value engineering, Army Ideas for Excellence, methods and standards, and other programs. Cost projections and rates have been adjusted to reflect effects of productivity initiatives.

Performance Indicators. Schedule conformance is the chief measure of Depot Maintenance--Ordnance performance effectiveness. The goal for FY 1995 through FY 1997 is 90% of production completed on schedule.

Capital Budget. The capital budget for Depot Maintenance--Ordnance totals \$6.6 million for FY 1995, \$21.8 million for FY 1996, and \$17.5 million for FY 1997. Details are provided in the Capital budget section of this submission.

DEFENSE BUSINESS OPERATIONS FUND - ARMY  
DEPOT MAINTENANCE - ORDNANCE  
REVENUE AND EXPENSES  
(Dollars in Millions)

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
Revenue:	615.7	537.5	529.6
Gross Sales	615.7	537.5	529.6
Operations	597.5	517.6	510.3
Capital Surcharge	0.0	0.0	0.0
Depreciation	18.2	19.9	19.3
Expenses:			
Cost of Material Sold from Inventory			
Negotiated Purchases from Customers			
Transportation	0.7	0.7	0.7
Salaries and Wages:	283.4	267.2	279.0
Military Personnel	2.5	1.5	1.4
Civilian Personnel	280.8	265.7	277.6
Materials, Supplies & Parts Used in Operations	90.8	86.6	78.5
Facility Repair & Maintenance	36.7	32.9	32.7
Depreciation/Amortization	18.2	19.9	19.3
Contracted Engineering Services		1.9	2.0
Lease Costs	1.3	1.8	1.9
Purchased Utilities	11.9	11.9	12.0
Purchased Communications	0.3	0.6	0.6
Equipment Maintenance by Contract	2.7	2.8	3.1
Fuel	2.1	2.9	2.8
Other Expenses	101.8	99.0	81.0
Cost of Goods Produced:	549.7	528.2	513.6
Change in WIP	(19.9)	(12.8)	(14.5)
Cost of Goods Sold:	569.7	541.0	528.1
Operating Result:	46.1	(3.5)	1.5
	0.0	0.0	0.0
Prior Year and Other Adjustments	3.2		
Other Changes Affecting NOR/AOR			
Net Operating Result:	42.8	(3.5)	1.5
Prior Year AOR (adjusted)	(40.8)	2.0	(1.5)
Accumulated Operating Results	2.0	(1.5)	0.0

DEFENSE BUSINESS OPERATIONS FUND - ARMY  
 ARMY DEPOT MAINTENANCE - ORDNANCE  
 SOURCE OF REVENUE (NEW ORDERS)  
 (Dollars in Millions)

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
<b>1. New Orders</b>			
a. Orders from DoD Components:			
Army	352.7	332.9	204.0
Navy	12.4	3.2	4.3
Air Force	3.1	0.0	0.0
Marine Corps	0.2	8.0	1.3
DLA	0.2	0.0	0.0
Other DOD	41.8	71.7	52.1
b. Orders from other Fund Business Areas:	43.6	38.8	33.1
c. Total DoD	453.9	454.6	294.8
d. Other Orders:	6.1	40.2	37.7
Other Federal Agencies	1.3	0.0	0.7
Foreign Military Sales	3.9	32.5	26.5
Non-Federal Agencies	0.8	7.7	10.5
All Other	0.0	0.0	0.0
<b>2. Carry-in Orders</b>	632.9	477.2	434.5
<b>3. Total Gross Orders</b>	1,092.9	972.0	766.9
<b>4. Change to Backlog</b>	477.2	434.5	237.3
<b>5. Total Gross Sales</b>	615.7	537.5	529.6

DEFENSE BUSINESS OPERATIONS FUND  
ARMY DEPOT MAINTENANCE, ORDNANCE  
CHANGES IN COSTS OF OPERATIONS  
(DOLLARS IN MILLIONS)

FY 1995 Actual Cost		549.7
FY 1996 Estimate in President's Budget		526.3
Pricing Adjustments		
General Purchase Inflation		(0.2)
Program Changes		
Increased Costs at Crane		1.9
Increased Costs for tenants		1.4
Changes in Materials and Supplies due to workload mix		(1.1)
FY 1996 Current Estimate		528.2
Pricing Adjustments		
Annualization of Prior Year Pay Raises		1.5
FY 1997 Pay Raise		5.7
Civilian Personnel	5.7	
Military Personnel	0.0	
Fund Price Changes		(1.3)
General Purchase Inflation		4.0
Other Price Changes		
Productivity Initiatives and Other Efficiencies		(3.9)
Capital Investment	(1.6)	
Value Engineering	(1.4)	
Methods & Standards	(0.2)	
Employee Suggestions	(0.4)	
Other	(0.2)	
Program Changes		(20.6)
Equipment Purchases for Tenants	(10.4)	
Completion of Egyptian Co-Production Effort	(4.6)	
Reductions for Materials due to decreased customer orders	(4.9)	
Depreciation	(0.7)	
FY 1998 Estimated Cost		513.6

DEFENSE BUSINESS OPERATIONS FUND - ARMY  
FY 1997 BUDGET ESTIMATE

INFORMATION SERVICES

**FUNCTIONAL DESCRIPTION:**

The Information Services business area provides for development and operational sustainment of automated information systems. Business functions include requirements definition, system design, development, testing, integration, implementation support, and documentation services in support of Department of Defense, Department of Army, Army Materiel Command (AMC), U.S. Army Information Systems Command (USAISC), and Foreign Military Sales (FMS) customers.

**BUSINESS AREA COMPOSITION:**

Army Central Design Activities (CDAs) chartered in the Information Services business area are:

Industrial Logistics Support Center (ILSC), Chambersburg, PA  
Logistics Systems Support Center (LSSC), St. Louis, MO  
Software Development Center-Lee (SDC-Lee), Fort Lee, VA  
Software Development Center-Huachuca (SDC-Hua), Fort  
Huachuca, AZ  
Software Development Center-Washington (SDC-Wash), Fairfax,  
VA

ILSC and LSSC are part of AMC, located in Alexandria, Virginia. ILSC and LSSC report to AMC through separate intermediate commands, the Industrial Operations Command (IOC) at Rock Island, Illinois, and the Missile Command in Huntsville, Alabama, respectively. ILSC will move from Chambersburg to Rock Island beginning in late fiscal year (FY) 1996 due to a Base Realignment and Closure (BRAC) action.

SDC-Lee, SDC-Hua and SDC-Wash are all part of USAISC, located at Fort Huachuca, Arizona. These CDAs report to USAISC through the Information Systems Software Center (ISSC), located at Fort Belvoir, Virginia. SDC-Hua will be disestablished during FY 1996 leaving only two USAISC CDAs.

DEFENSE BUSINESS OPERATIONS FUND - ARMY  
FY 1997 BUDGET ESTIMATE

INFORMATION SERVICES

**BUDGET HIGHLIGHTS:**

In FY 1996, the Army added CDAs to the existing Information Services Business Area in the Defense Business Operations Fund (DBOF). During FY 1996, the business operates on a reimbursable basis. For FY 1997, rates have been established and the business will operate under the total DBOF concept.

**Personnel.**

	FY 95	FY 96	FY 97
Civilian End Strength	N/A	908	847
Civilian Work Years (Regular)	N/A	1,004	881
Military End Strength	N/A	300	267
Military Work Years	N/A	300	236

Civilian end strength decreases from the previous President's Budget submission by 29% for FY 1996 and 34% for FY 1997. Military end strength decreases 11% for FY 1997. These decreases are attributable to streamlining, Combined Arms Support Command (CASCOM) reprogramming, reduced support to the Army Civilian Personnel System (ACPERS), elimination of support to the Internal Revenue Service, consolidation of Civilian Personnel Offices (CPOs), and the elimination of SDC-Hua.

**Costs, Operating Results (OR), And Rates:**

	FY 95	FY 96	FY 97
Costs of Goods & Services Sold	N/A	173.8	137.7
Net Operating Results	N/A	0.0	0.0
Accumulated Operating Results	N/A	0.0	0.0
Customer Revenue Rate Per DLH	N/A	N/A	64.89
% Rate Change from Prior Year	N/A	N/A	2.2%
Unit Costs (\$/DLH)	N/A	N/A	61.75
DLH (000)	N/A	N/A	2,229.9



DEFENSE BUSINESS OPERATIONS FUND - ARMY  
FY 1997 BUDGET ESTIMATE

INFORMATION SERVICES

**Costs.** Total costs decrease from the prior President's Budget submission by 6% for FY 1996 and 26% for FY 1997. Downsizing and the elimination of SDC-Hua account for these reductions.

**Unit Costs.** No valid comparison can be made between years because FY 1996 operations were cost reimbursable.

**Productivity Initiatives/Cost Reductions.** Elimination of SDC-Hua during FY 1996 creates a significant cost reduction of \$ 29.4 M.

**Capital Budget.** The CDAs have no capital projects at this time.

DEFENSE BUSINESS OPERATIONS FUND - ARMY  
ARMY INFORMATION SERVICES  
REVENUE AND EXPENSES  
(Dollars in Millions)

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
Revenue:		173.8	137.7
Gross Sales		173.8	137.7
Operations		173.8	137.7
Capital Surcharge			
Depreciation			
Expenses:			
Cost of Material Sold from Inventory			
Negotiated Purchases from Customers			
Transportation		0.1	0.1
Salaries and Wages:		78.1	61.3
Military Personnel		10.0	8.6
Civilian Personnel		68.1	52.7
Materials, Supplies & Parts Used in Operations		2.1	2.6
Facility Repair & Maintenance		0.0	0.0
Depreciation/Amortization		0.0	0.0
Contracted Engineering Services		0.0	0.0
Lease Costs		4.2	3.9
Purchased Utilities		0.2	0.2
Purchased Communications		0.6	0.7
Equipment Maintenance by Contract		25.9	2.0
Fuel		0.0	0.0
Other Expenses		62.6	66.9
Cost of Goods Produced:		173.8	137.7
Change in WIP		0.0	0.0
Cost of Goods Sold:		173.8	137.7
Operating Result:		0.0	0.0
		0.0	0.0
Prior Year and Other Adjustments			
Other Changes Affecting NOR/AOR			
Net Operating Result:		0.0	0.0
Prior Year AOR (adjusted)		0.0	0.0
Accumulated Operating Results		0.0	0.0

DEFENSE BUSINESS OPERATIONS FUND - ARMY  
 INFORMATION SERVICES  
 SOURCE OF REVENUE (NEW ORDERS)  
 (Dollars in Millions)

	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
<b>1. New Orders</b>	N/A		
a. Orders from DoD Components:			
Army		138.7	111.7
Navy			
Air Force			
Marine Corps			
DLA		0.1	0.1
Other DOD			
b. Orders from other Fund Business Areas:		33.4	24.8
c. Total DoD		172.2	136.6
d. Other Orders:		1.6	1.1
Other Federal Agencies			
Foreign Military Sales		1.6	1.1
Non-Federal Agencies			
All Other			
<b>2. Carry-in Orders</b>		0.0	0.0
<b>3. Total Gross Orders</b>		173.8	137.7
<b>4. Change to Backlog</b>		0.0	0.0
<b>5. Total Gross Sales</b>		173.8	137.7

DEFENSE BUSINESS OPERATIONS FUND  
ARMY INFORMATION SERVICES  
CHANGES IN COSTS OF OPERATIONS  
(DOLLARS IN MILLIONS)

FY 1995 Actual Cost		0.0
FY 1996 Estimate in President's Budget		185.3
Pricing Adjustments		(1.1)
General Purchase Inflation		(1.1)
Program Changes		
Workload Realignment due to Downsizing		(10.4)
FY 1996 Current Estimate		173.8
Pricing Adjustments		2.9
Annualization of Prior Year Pay Raises		0.4
FY 1997 Pay Raise		1.5
Civilian Personnel	1.5	
Military Personnel	0.0	
Fund Price Changes		0.2
General Purchase Inflation		0.8
Program Changes:		(39.0)
Disestablishment of SDC-HUA	(29.4)	
Decrease in Cost of Contracts	(3.8)	
Other Downsizing	(5.8)	
FY 1998 Estimated Cost		137.7

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CAPITAL BUDGET

# BUSINESS AREA CAPITAL BUDGET SUMMARY

Component: Army  
Supply Management, Army  
March 1996  
(\$ IN MILLIONS)

Line Number	Item Description	FY95		FY96		FY97	
		Quantity	Tot Cost	Quantity	Tot Cost	Quantity	Tot Cost
96-1	Equipment -Replacement						
96-2	Mini-Computer System	1		1	0.300	1	0.300
96-3	Product Production Equipment Replacement	167		167	0.493		
96-4	Materiel Management Equipment Replacement	318		318	1.230	85	0.365
96-8	Logistics and Maintenance Equip Replacement	39		39	0.195	72	0.360
97-2	Data Servers	2		2	0.755		
97-7	CCSS High Speed Printer					1	0.258
	LAN Replacement-ERF					1	0.200
	Software						
96-17	Single Stock Fund		0.750				
96-18	Standard Army Automated Contracting System		3.500				
96-19	Funding/Availability Multi Method Allocation for Spares		0.600		0.400		
96-20	Joint Logistics Systems Center		11.500		12.000		15.000
96-21	PADDs-EDI		2.400				
97-3	Common User Interface						4.933
97-4	Conversion of MILSTEP						0.489
97-6	Central Asset Management						5.000
97-7	Zero Tech Time Loop		0.226				
	Non ADPE Equipment-Replacement			1	0.150		
96-6	Kearney & Trecker Machining Center						
	Total		18.976		15.523		26.905

SUPPLY MANAGEMENT, ARMY  
FY 96 DBOF Capital Purchases  
Deferrals, Cancellations, Substitutions

Army  
(Dollars in Thousands)

1. SMA 96-20 JLSC
  - a. Software Development
  - b. Army was identified as first service to be fielded, therefore funding was transferred from other services to Army.
  - c. FY 95 President's Budget \$7,500.



BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION										A. Budget Submission				
(\$ in Thousands)										FY 97 President's Budget				
B. Component/Business Area/Date			C. Line No. & Item Description			D. Activity Identification				Missile Command (MICOM)				
Supply Management, Army March 1996			Mini-Computer System 96 - 1											
			FY 94			FY 95			FY 96			FY 97		
Element of cost			Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
Hewlett Packard Mini-Computer												1	300	300
<p>Defense Business Operations Fund Direct Mission</p> <p>This requirement is necessary to replace an existing system that supports Procurement Automated Data and Document System (PADDS). The current system is outdated and serves approximately 100 users. With the prospects of additional personnel from other commands moving to MICOM, more users will be required to use the system. Failure to procure the needed equipment will result in many insufficiencies, such as inability to communicate with other commands, and will delay in preparing solicitations, amendments, contract awards, modifications and other contractual documents. This requirement will expand the capabilities in workplace automation. The computer system will allow the acquisition center to accomplish these assigned functions and missions in a more timely manner. The software applicable to be used on Hewlett Packard 9000 is Oracle at an estimated cost of \$49,000.00.</p> <p>Hewlett Packard 9000 series super mini-computer software: Operating system oracle database management system.</p> <p>The economic analysis shows this system will save \$257K over a two year period and save three workyears in productivity.</p>														

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION										A. Budget Submission FY 97 President's Budget	
B. Component/Business Area/Date SUPPLY MANAGEMENT, ARMY (SMA) March 1996		C. Line No. & Item Description Material Management Equipment Replacement 96-3				D. Activity Identification Communication & Electronic Command (CECOM)					
		FY 94		FY 95		FY 96		FY 97			
Element of cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Total Cost
Replacement of Personal Computers							85	4.13		365	

The Directorate of Materiel Management (DMM) requires replacement of personal computers. The DBOF SMA account funds 85 % of the DMM payroll. Based on a BRAC decision, DMM, along with the other HQ elements of CECOM, must move to the Main Post of Fort Monmouth by 1996. The data information infrastructure designed by the Directorate for Corporate Information (DCI) for the use on the Main Post will make the existing personal computers virtually useless as tools in a network environment. Their only value will be as stand alone personal computers. Such conditions would render over 65% of the Directorate workforce under-productive, since these obsolete personal computers would not support a Windows Software Environment, provide file transfer capability or encourage a paperless workplace.

An economic analysis was performed and showed cost benefit of \$8.9 million with the program having a 6 year payback period and saving 259 manyears of labor in the seventh year.

This program has already been approved.



BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION (\$ in Thousands)										A. Budget Submission FY 97 President's Budget	
B. Component/Business Area/Date Supply Management, Army March 1996		C. Line No. & Item Description 97-2 CCSS High-speed printer			FY 96			FY 97			
		Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
Element of cost											
Printer Replacement								1	258	258	
<p><b>Narrative Justification:</b></p> <p>a. Current Process: The U.S. Army Missile Command is currently utilizing two Honeywell PPS-II high-speed printers to support printing of the Command's critical item accounting, acquisition, payroll, and other Commodity Command Standard System and unique applications. The PPS-II systems output approximately 3.5 million pages per month.</p> <p>b. Anticipated Benefits: The printers currently in use are approximately 8 years old, are constantly being repaired, and have reached the end of their expected life cycles. Repair parts are in such short supply they are being cannibalized from other printers. Acquisition of new printers will ensure that MICOM's critical item accounting, acquisition, payroll, and other CCSS and unique applications are printed as required.</p> <p>c. Project Start/Completion Date: The U.S. Army Missile Command Acquisition Center indicates that award of a contract for replacement printers can be made from GSA schedules within 30 days of receipt of funds.</p> <p>d. Regulatory Requirements that are Impetus for the change: AR 25-1, para 2-3b.</p> <p>e. Classification of Equipment/Construction Purchases (Replacement, Productivity, or New Mission): Replacement of Honeywell PPS-II high-speed printers.</p> <p>f. Impact if not funded: The Honeywell PPS-II high-speed printers support printing of the Command's critical item accounting, acquisition, payroll, and other Commodity Command Standard System and unique applications. The PPS-II systems output approximately eight years old, are being repaired constantly, and have reached the end of their useful lives, replacing them is imperative. If funding to replace the printers is not made available, the potential exists that printing to support mission essential operations will not be possible.</p>											

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION (\$ in Thousands)										A. Budget Submission FY 97 President's Budget			
B. Component/Business Area/Date Supply Management, Army March 1996		C. Line No. & Item Description 97-7 Local Area Network (LAN)			FY 95			FY 96			FY 97		
Element of cost		Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
Local Area Network/ Radio Freq (LAN/RF)													200
<p><b>Narrative Justification:</b></p> <p>a. Current Process: A fixed Local Area Network (LAN) with limited expansion.</p> <p>b. Anticipated Benefits: Unlimited flexibility in installing and configuring a Depot Area Network. The Local Area Network/Radio Frequency (LAN/RF) would give the warehouses much needed flexibility to adjust to the changing missions and be able to accept new ones. Each device is mobile and requires minimal mounting brackets. LOGMARS could also be installed to give on-line access to the Standard Depot System.</p> <p>c. Project Start/Completion Date: The starting date is predicated on the acquisition of the funds. Completion time for installation, training and testing could be accomplished within a two month time frame. Equipment is readily available and a acquisition would be through the U.S. Army contracting solicitation and procurement process. (43 implementations sites).</p> <p>d. Classification of Equipment: Replacement</p> <p>e. Impact if not funded: The LAN/RF provides the entire warehousing operation with the ability to adjust to changing/increasing materiel redistribution missions. Supply and overall logistics data can be transmitted/received to/from each warehouse or received by the European Redistribution Facility (ERF) central ADP point from any storage or administrative location on the facility. If necessary each piece of RF equipment can be moved without physical disruption to any building or its operation. Each RF device is mobile, unlike cable, which is fixed in location. The newly acquired LOGMARS equipment (FY94) can be fully utilized with this requested</p>													

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION (\$ in Thousands)		A. Budget Submission FY 97 President's Budget
B. Component/Business Area/Date Supply Management, Army September 1995 (Narrative Justification continued)	C. Line No. & Item Description 97-7 Local Area Network (LAN)	D. Activity Identification AMC-E (ERF)
<p>LAN/RF equipment allowing ADP input/output to any part of a warehouse or to any outside storage area where employees are assigned and required to report quantities of materiel. Reporting would be spontaneous (regardless of location of the employee), thus saving an unknown amount of inventory reporting time. This saved time would result in the employee(s) being able to cover a host of other logistic operations at ERF. If the LAN/RF is not funded then ERF is forced to remain at the current computer configuration (UNISYS) and not be able to expand materiel receipt issue data and would be delayed on accepting new missions or increasing the daily volume of receipt and issue information. There would also be a risk of an ADP materiel processing backlog since the input would be limited to one central video in-processing station. The current GSA UNISYS repair contract is also very limited on the amount of older equipment that can be repaired/maintained, thus, if any portion of the hardware is off-line for servicing then a backlog would be generated. The backlog would give a false reading on a priority basis. The installation of stationary/fixd underground cable would drive the cost of an ADP upgrade to approximately \$100,000 for earth construction alone. Drilling holes for cable entry access would weaken warehouse structures and possibly add another \$100,000 for this type of work. Once the cable is installed and operational it again offers limited upgrade capabilities since it is fixed in place and would require more digging if a mission change/addition required to change to the cable configuration. The environmental impact of digging lines for cable would be disruption to the overall facility operations while the cable trench is opened from warehouse to warehouse. Cabling would also disrupt transportation traffic during (approximately) one year of construction time. There is also the high risk of construction equipment cutting a utility line on post, such as gas, water, sewage and electric.</p> <p>The major impact would be to limit the ERF from accepting or expanding new missions due to the age and current limitations of the ADP equipment. ERF saves the U.S. Government approximately \$6.5M per fiscal year in transportation savings alone, by shipping on-hand materiel directly to units in theater, rather than extending receiving time for materiel from a CONUS-based supply activity.</p> <p>f. Activities to receive Equipment/System: European Redistribution Facility, Nahbollenbach, Germany</p>		

BUSINESS AREA CAPITAL PURCHASES JUSTIFICATION											A. Budget Submission FY 97 President's Budget	
B. Component/Business Area/Date SUPPLY MANAGEMENT, ARMY March 1996		C. Line No. & Item Description Material Mgmt Standard Sys(MMSS) ADPE Equipment 96-20		FY 95			FY 96			FY 97		
(\$ in Thousands)				Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
Element of cost												
Hardware												15000
User Level												15000
TOTAL HARDWARE												

These funds are to support the fielding of the Materiel Management Standard System (MMSS) being developed by the Joint Logistics Systems Center to the Army Inventory Control Points (ICPs). During the recent budget review, the responsibility of budgeting for acquisition of hardware for Fiscal Years 1995-1997 was transferred from the JLSC to the Military Services and Defense Logistics Agency.

The MMSS was created in response to the DoD initiative to standardize logistics systems across DoD. Over the past two years the JLSC, working with the Military Services and the Defense Logistics Agency (DLA), has evaluated the processes of the DoD Inventory Control Points (ICPs), selected and developed the most optimum automated information systems to support improved standard business practices. This request funds the continued deployment of these systems to the Department ICPs.

The type and amount of equipment needed is dependent upon the size of each site and the availability and applicability of equipment currently at that site. This requirement is based upon site surveys representative of various size sites. As deployment to a specific site nears, and taking into account acquisition lead times, a final survey will be conducted to confirm requirements. Representative configurations vary in size from those including servers at approximately \$314K per site to personal computer workstations with 17 or 15 inch displays at \$3.1 - \$2.7K per site and X-terminal workstations at \$2K per site. This represents a mixture of those configurations dependent upon deployment schedule and site requirements.

The MMSS will provide a radically improved functional capability to the Military Services and DLA, reduce costs for information services and establish a systems infrastructure on which DoD can improve the way it does business. Specific improvements include; reduced inventories through better management; reduced labor requirements; reduced overhead costs; and improved control of assets. Once implementation is completed, legacy applications will be reduced or eliminated decreasing ADP costs markedly.

This program has already been approved for FY 95. FY 96 reflects a \$4.5 million increase and FY 97 reflects a \$6.4 million increase over the previously approved program. JLSC has coordinated these increases with DoD Comptroller, Program and Budget Office.

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION (\$ in Thousands)										A. Budget Submission FY 96 President's Budget	
B. Component/Business Area/Date Supply Management, Army March 1996		C. Line No. & Item Description 97-3 Common User Interface			FY 96			FY 97			
			Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
Element of cost											
Labor CDA											2892
Software Acquisition											570
Labor-Contractor											1471
Total											4933
<p><b>Narrative Justification:</b></p> <p>a. Current Status: Introduction to Department of Defense (DoD) Corporate Information Management (CIM) systems into the Army Automated System (AIS) environment is expected to take place over several years in an incremental fashion. During this timeframe, Army must continue to rely on existing legacy systems to conduct its daily operations. Not all of the current legacy systems are expected to be replaced by the DoD CIM systems so that the end users will be faced with trying to navigate through a combination of new and old systems/databases residing on different hardware/software platforms which will require retraining each time new systems are introduced and old systems are replaced. In order to provide users with maximum access to these systems, a common workstation access path needs to be established using a client server environment in which data would reside on the mainframe and the business rules on the client server platform. Such system would allow users to perform all work functions from a single workstation with capability to query functional databased residing on the server and request information residing on legacy system mainframes. In addition, commercial-off-the-shelf (COTS) software such as spreadsheets, word processors and e-mail would also be available from the same workstation. This common workstation approach would establish and maintain a stable environment to the end user, minimize retraining efforts and ease the transformation from the existing legacy systems to their replacing CIM systems.</p> <p>b. Anticipated Benefits: Reduce the amount of Major Subordinate Command (MSC) Director of Information Management (DOIM) support which will be required to provide end users with access to required data information from a mixture of legacy CIM systems operating on different hardware/software platforms, databases, ect.</p> <p>c. Project Start/Completion Date: 1 Qtr FY 96 / 2 Qtr FY 97</p> <p>d. Classification of Equipment: Replacement</p>											



BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION (\$ in Thousands)										A. Budget Submission FY 97 President's Budget	
B. Component/Business Area/Date Supply Management, Army March 1996		C. Line No. & Item Description 97-4 Conversion of MILSTEP to Read Variable Length Records 97-4			FY 96			FY 97			
Element of cost		Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
Labor CDA										489	
<p><b>Narrative Justification:</b></p> <p>a. Current Process: MILSTEP reads transactions such as requisitions and supply status records which are in 80 cards column format. Raw requisition and status data is processed and sorted into several hard copy performance reports for use by Inventory Control Points and higher headquarters. In summary, intensive manual effort is required to transmit and translate MILSTEP data into the charts and spreadsheets required to perform supply performance analysis. Information is stored in flat files in 29 year old database.</p> <p>b. Anticipated Benefits: MILSTEP, if converted, would be able to read and compile reports based on the new variable length records and new transaction formats described in the Defense Logistics Management Standard System (DLMS). If data were put into a centralized, relational database with Graphic User Interface, reports not available through current canned output products could be produced.</p> <p>c. Project Start/Completion Date: Nov 95/Nov 97.</p> <p>d. Regulatory Requirements that are Impetus for the change: Not Applicable.</p> <p>e. Classification of Equipment: Replacement</p> <p>f. Impact if not funded: MILSTEP supply performance reporting as described in DoD 4000.23, DoD 4100.25-1-M, and DoD 4410.6 would cease because it would not be programmed to read variable length records and new transaction formats. DLMS is scheduled for implementation in Oct 98 (test site in Oct 96).</p> <p>g. Activities to receive Equipment/System: HQ Army Materiel Command (AMC, Major Subordinate Commands (MSCs), Logistics Support Activity (LOGSA), HQDA.</p>											

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION (\$ in Thousands)										A. Budget Submission FY 97 President's Budget	
B. Component/Business Area/Date Supply Management, Army March 1996		C. Line No. & Item Description 97-6 Central Asset Management				D. Activity Identification Army Materiel Command (AMC)					
Element of cost		FY 95			FY 96			FY 97			
		Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
1. CCSS Modification											
* 2. Def MEGA Ctr/site Cost											
* 3. SIMA-E Systems Mods											
* 4. SIMA-E per site Cost											
* 5. SIMA-W per site TDY Cost											
* 6. Starfiars-Mod Interface											
Total											5.000
<p><b>Narrative Justification:</b></p> <p>a. Current Process: Central Asset Management will eliminate the current retail MACOM level Stock Funds and Associated Financial Inventory Accounting Operations at installation level Central Asset Management will also eliminate AR-710-2 Supply Support Operations per AR 710-2. Installations and Corps will operate NICP Custodial Supply Accounts Materiel Management and Financial Inventory Accounting functions will be centralized at national level.</p> <p>b. Anticipated Benefits: Approximately \$1.2B (over 10 year period) in Secondary Items Inventory benefits and approximately \$.7B (10 year period) in reduced supply and financial operations costs. Additionally Central Asset Management provides business practice changes which permit integrated sustainment maintenance and Total Asset visibility to achieve full potential.</p> <p>c. Project Start/Completion Date: In accordance with the Army SSF EA, implementation starts in FY 95 and concludes in the FY 99 (43 implementations sites).</p> <p>d. Regulatory Requirements: Not Applicable. Central Asset Management is an improved business process designed to permit supply and financial management operations to perform at same or increased levels of performance after prior reductions in resourcing via the defense management review decision resource reductions.</p> <p>e. Classification of Equipment/Construction Purchases: Replacement &amp; New Mission.</p> <p>f. Impact if not funded: \$1.9B in avoidable operational costs.</p> <p>g. Activities to receive Equipment/System: Implementation Army-wide at Installations, Corps, NICP's and Maintenance Depots.</p>											

**Business Area Capital Investment Summary**  
**Army Depot Maintenance, Other**  
**(\$ in Millions)**

Line Number	Description	FY 95		FY 96		FY 97	
		Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost
<b>EQUIPMENT</b>							
<b>Replacement</b>							
97-M1	Electron Beam Welder			1	1.560		
97-M2	Plasma Spray Cells			3	2.300		
97-M4	Engine Test Cell Upgrade			1	2.400	1	0.600
97-M5	Integrated Family of Test Equipment			1	1.900		
97-M7	Various Other Equipment (<\$500,000)	1	6.500	40	13.519	30	13.027
97-M13	Bore Drill Milling Machine					1	4.050
97-M16	Horizontal Boring Mill - Rebuild					2	1.400
97-M30	Xerox 4090 Page Printer					1	0.475
97-M31	Page Printing System					1	0.415
<b>Productivity</b>							
97-M8	Rubber Products Modernization	1	1.814			4	2.074
97-M9	Production Assembly Cell						
97-M10	Indoor Radar Test Site Equipment			1	2.067	1	0.615
97-M24	Computer Numerical Control Punch Press						
97-M25	Aircraft Laser Paint Stripper			1	3.244		
97-M26	Electronic Van Refurbishment					1	0.875
<b>Environmental Compliance</b>							
97-M11	Waste Minimization Cap Acct	1	0.400	1	1.554	1	0.200
97-M12	Fume/Dust Collection System						
<b>New Mission</b>							
97-M14	Vehicles, DMPE/NWSS	1	2.552				
97-M15	Aircraft, DMPE	1	5.300				
	TOTAL	5	16.566	49	28.544	43	23.731
<b>ADPE &amp; TELECOMMUNICATIONS</b>							
97-M17	Sperry 5000 Systems Replacement			10	4.201		
97-M18	Network File Servers			5	0.215		
97-M19	Personal Computers			20	0.129		
97-M20	Computer Assisted Eng Expansion			1	0.945		
97-M21	Fiber Optic LAN			1	7.760	1	1.286
97-M23	Depot Maintenance System (DMS)	1	2.017	1	4.364	1	4.140
97-M27	Engineer PC CADD Upgrade					1	0.161
97-M28	Encrypted Trunk Radio Network					1	1.544
97-M29	Laser Digitizing System					1	0.530
	TOTAL	1	2.017	38	17.614	5	7.661
<b>MINOR CONSTRUCTION</b>							
97-M22	Minor Construction Projects	9	5.237	8	7.000	8	11.300
	TOTAL	9	5.237	8	7.000	8	11.300

**Business Area Capital Investment Summary**  
**Army Depot Maintenance, Other**  
**(\$ in Millions)**

Line Number	Description	FY 95		FY 96		FY 97	
		Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost
	<b>Reliability, Maintainability &amp; Supportability Mod</b>						
97-R1	AH-64 TADS Azimuth Actuator						1.600
97-R2	AH-64 PNVs Azimuth Actuator						1.600
97-R3	UH-60 Tail Rotor Blade Assembly						0.137
97-R4	AH-64 Primary IR Nozzles: Rivets to Bolts						0.543
97-R5	AH-64 Primary Heat Suppressor Materials						0.922
97-R6	AH-64 Servo Actuator Boots						1.248
97-R7	T700-GE-701C Stage 1 Turbine Blade						0.320
97-R8	AH-64 Main Rotor Pitch Housing						0.185
97-R9	AH-64 Environmental Control Unit Sensor						0.081
97-R10	AH-64 Main Rotor Blade Surface Prep.						0.470
97-R11	AH-64 Main Rotor Lead/Lag Link						0.425
97-R12	AH-64 PNVs Elevation Belt Assembly						0.900
97-R13	AH-64 Day Shroud Harness						0.420
97-R14	AH-64 Engine Nose Gearbox Oil Pump						0.310
97-R15	Vehicle Intercom System (VIS) Headset						1.169
97-R16	Linear Drive Cooler Life Improvement						0.937
97-R17	AN/VVS-2 NV Viewer Needle (Purge) Valve						0.241
97-R18	PP-7815 Power Processor Redesign						0.256
97-R19	Advanced QUICKLOOK Surveillance System						1.226
97-R20	AN/PRD-12 Direction Finding Set						1.573
97-R21	HMMWV Mounted MLRS FCP-TPT						4.380
97-R22	M1 Series Slip Ring Upgrade						0.807
97-R23	TACOM Top 10 Parts						5.050
	<b>TOTAL</b>		23.820		53.158		24.800
	<b>GRAND TOTAL</b>						67.492

**DEPOT MAINTENANCE - OTHER  
FY 1996 DBOF CAPITAL PURCHASES  
DEFERRALS, CANCELLATIONS, SUBSTITUTIONS**

**ARMY  
(\$ IN 000)**

**Depot Maintenance - Other - Industrial Operations Command (IOC)**

- |  |           |
|--|-----------|
| a. Replacement - Depot Maintenance Plant Equipment (DMPE), Replacement   | \$ 15,436 |
| b. Cancellation of projects  |           |
| c. Capital project totalling \$15.436 million was cancelled because FY 1997 Construction was delayed until after FY 1998 |           |

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Equipment - Replacement**  
**(\$ in Millions)**

B. Component/Business Area/Date Army, Depot Maintenance - Other		March 1996		C. Line No. Item Description 97-M1 Electron Beam Welder		FY 96		FY 97		D. Activity Identification Corpus Christi Army Depot		A. Budget Submission FY 1997 Budget Submission	
Element of Cost	Quantity	FY 95		Quantity	Total Cost	FY 96		Quantity	Total Cost	Quantity	Total Cost	Unit Cost	Total Cost
		Unit Cost	Total Cost			Unit Cost	Total Cost						
Electron Beam Welder				1		1,560	1,560		1,560				
<b>TOTAL</b>				1			1,560		1,560				

This project replaces the existing electron beam welder, which is time worn and can not measure, record, or program any welding parameters. In addition, it is not capable of real-time monitoring of the Electron Beam welding process. The equipment was manufactured in 1975 and is now obsolete. Maintenance costs are excessive (typically exceeding \$60K per year) and the equipment reaches the end of its life expectancy in FY 1995. Reliability is only 70% due to excessive down time. Parts are sent to Kelly Air Force Base when the equipment is broken generating additional overhead cost. The new Electron Beam Welder has the capability to weld certain types of materials in a vacuum atmosphere. It has a 32-bit Central Processing Unit, 3.5 and 5.25 disks, closed-circuit TV, combination linear rotary table, optical viewing system, and seam locating system.

Without the proposed equipment, Corpus Christi Army Depot (CCAD) will continue to use the existing welder which suffers long periods of down time and operates inefficiently. Maintenance costs will continue to increase as the equipment deteriorates due to its advanced age and lack of parts availability. In addition, production costs will escalate due to: 1) Loss of production during equipment downtime; 2) Production inefficiencies associated with slow vacuum pump down time, material processing procedures, and the manual steps required to actually weld the part; 3) Transport of the repair items to the nearest facility that is able to weld the items. CCAD eventually loses engine work load due to inability to process parts.

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION									
Capital Budget Category: Equipment - Replacement (\$ in Millions)									
B. Component/Business Area/Date Army, Depot Maintenance - Other		March 1996		C. Line No. 97-M2		Item Description Plasma Spray Cells		FY 97	
Element of Cost	Quantity	FY 95		FY 96		FY 97		D. Activity Identification Corpus Christi Army Depot	
		Unit Cost	Total Cost	Quantity	Unit Cost	Quantity	Unit Cost	Total Cost	
Plasma Spray Cells				3	0.767	2,300			
TOTAL				3		2,300			
<p>This project reduces production-cycle time and operating costs in processing metal sprayed parts. In addition, sufficient metal spray production capacity is established to ensure that parts are efficiently processed at the lowest possible cost. This is accomplished by developing smooth-flow production and by eliminating unnecessary work, such as excessive routing and queuing delays. The majority of the present equipment is old and does not take advantage of new technology. Currently, set-up times are unnecessarily long as is the actual processing time. The new cells provide flexibility by approaching just-in-time production. This means having the capability to process only the parts that are required - only when they are needed. The cells consist of equipment that has short set-up and processing times resulting in shorter production cycle times and lower production costs.</p> <p>If this equipment is not acquired, Corpus Christi Army Depot will continue to experience periodic production bottlenecks and delays in the metal spraying of parts resulting in long production cycle times and high production costs.</p>									

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Equipment - Replacement**  
**(\$ in Millions)**

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION										A. Budget Submission	
Capital Budget Category: Equipment - Replacement										FY 1997 Budget Submission	
(\$ In Millions)											
B. Component/Business Area/Date		March 1996		C. Line No.		Item Description		D. Activity Identification			
Army, Depot Maintenance - Other		-		97-M4		Engine Test Cell Upgrade		Corpus Christi Army Depot			
		FY 95		FY 96		FY 97					
		Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost		
Engine Test Cell Upgrade Phase IV, V, and VI	Element of Cost										
						</					



BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION									
Capital Budget Category: Equipment - Replacement (\$ in Millions)									
B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996		C. Line No. Item Description 97-M5 Integrated Family of Test Equipment		FY 96		FY 97		A. Budget Submission FY 1997 Budget Submission
	Quantity	Total Cost	Quantity	Total Cost	Unit Cost	Quantity	Unit Cost	Total Cost	
Element of Cost									
Integrated Family of Test Equipment (IFTE) Commercially Equivalent Equipment (CEE)			1	1,900	1,900				
TOTAL			1	1,900					
<p>The Integrated Family of Test Equipment (IFTE) Commercial Equivalent Equipment (CEE) is the Army standard automatic test equipment for testing electronic assemblies and printed circuit boards. This test station is required for additional capacity to run new test programs being developed to support the Multiple Launch Rocket System (MLRS). The MLRS electronic workload is transitioning from Red River Army Depot (RRAD) to Letterkenny Army Depot (LEAD) and requires use of multiple IFTE test stations to support operational testing of electronic components. The IFTE CEE test stations replace older AN/USM-410 test stations presently testing MLRS at RRAD. The new IFTE test programs for the MLRS test updated components of the weapon system for which there is no test capability on the older AN/USM-410 test stations. The IFTE CEE also offers an increase in execution speed, which eventually reduces the total number of test stations required to support the MLRS. Expected useful life for the equipment is fifteen years.</p> <p>The total objective is to utilize five IFTE test stations to support the MLRS. Two IFTE test stations have been procured in prior years at a cost of \$2.7 million. One existing IFTE test station was diverted from Sacramento Army Depot and is currently in use at RRAD. One IFTE test station is included in the budget year, leaving one test station to be procured in subsequent years, depending on whether planned workload materializes.</p> <p>If the project is not funded, LEAD will not have an adequate number of IFTE test stations to the MLRS workload.</p>									

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Equipment - Replacement**  
**(\$ In Millions)**

B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996				C. Line No. Item Description 97-M7 Various Other Equipment (<\$500,000)				A. Budget Submission FY 1997 Budget Submission		D. Activity Identification All Depots	
	FY 95		FY 96		FY 97		FY 97					
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Total Cost	Total Cost	Total Cost
Various Other Equipment (<\$500,000)	1	6,500	6,500	40	0,338	13,519	30	0,434	13,027			
<b>TOTAL</b>	<b>1</b>		<b>6,500</b>	<b>40</b>		<b>13,519</b>	<b>30</b>		<b>13,027</b>			

This represents various modernization/replacement equipment costing <\$500M, which will improve depot efficiency through replacement, modification, or addition of production and maintenance capability and compliance with regulatory requirements. Includes the acquisition and installation of capital investment items valued between \$.050M and \$.500M with a useful life of two years or more. Equipment consists of replacement and productivity items to support organic maintenance overhaul, rebuild, conversion, renovation, modification, and repair programs at Army Defense Business Operations Fund installations. Examples of the equipment to be purchased are hydraulic test stands, gas chromatograph, engine lathe, Computer Numerically Controlled (CNC) lathe drilling and milling machine, bridge crane, test equipment, parts carousel, and hydraulic press. Replacement of equipment is required due to age, condition or non-availability of repair parts.

Acquisition of this equipment improves efficiency, increases capacity that cannot be met with current equipment, replaces unsafe or inoperative/unusable assets and includes requirements for environmental hazardous waste reduction or regulatory agency (local, state, Federal) mandated requirements. This new equipment increases reliability and productivity, thus enabling the depots to be more competitive.

If not approved, equipment support capability would not provide for mission needs and would impact in the following ways:

- a. Reduce mission capability.
- b. Cause failure to meet present and future workload requirements.
- c. Increase manhour expenditure
- d. Cause inability to meet production schedules
- e. Lead to excessive downtime.
- f. Decrease accuracy and dependability.

Economic analyses and cost comparisons have been completed and validated on these projects.

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION									
Capital Budget Category: Equipment - Replacement									
(\$ In Millions)									
B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996			FY 96			FY 97		
	Item Description	97-M13	Bore Drill Milling Machine	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
Element of Cost									
Bore Drill Milling Machine							1	4,050	4,050
TOTAL							1		4,050
<p>Current bore drill milling machines are forty-three years old, manually operated, cumbersome to set up and operate and spare parts are no longer available. The new machine is required to provide line boring overhaul, reclamation, and modification of combat vehicle hulls and turrets as well as bridges and other related items. The new machine is Computer Numerically Controlled (CNC). Each head can be positioned thereby, increasing throughput and efficiency of operation. Multiple machining operations can be performed without intermediate material handling for improved safety and precision.</p> <p>Impact of not funding is the loss of machines that manufacture and repair all vehicle and bridge programs. Present production schedules on the M60, M88, M1A1, and M1A2 vehicles will not be met and work Launcher seventy-ton bridge upgrade, and Medium Girder Bridge programs will not be performed. In addition, machine accuracy will continue to deteriorate resulting in increased costs for labor, rework, and in is necessary to economically and safely accomplish overhaul and maintenance workload at the Army's prime depot for heavy-armored recovery and bridging vehicles. Economic Analysis is completed. Benefit Ratio is 0.8; payback period is 9.4 years.</p>									
A. Budget Submission									
FY 1997 Budget Submission									
D. Activity Identification									
Anniston Army Depot									

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Equipment - Replacement**  
(\$ in Millions)

B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996		FY 95		FY 96		FY 97		D. Activity Identification Red River Army Depot	
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
Element of Cost										
Horizontal Boring Mill - Rebuild							2	0.700	1.400	
TOTAL							2		1.400	

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Equipment - Replacement**  
(\$ in Millions)

B. Component/Business Area/Date Army, Depot Maintenance - Other					C. Line No. Item Description 97-M30 Xerox 4090 Page Printer			D. Activity Identification Red River Army Depot			A. Budget Submission FY 1997 Budget Submission
					FY 95		FY 96		FY 97		
Element of Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Unit Cost	Total Cost
Xerox 4090 Page Printer											
<b>TOTAL</b>								1	0.475	0.475	0.475

The current equipment has reached the end of its life cycle. It is expensive to maintain and parts availability is a problem. Red River is the Theater Readiness Monitoring Facility for the Army. The depot operates a supply depot where they store, received, ship, issue, perform maintenance, and dispose of ammunition, missiles, armaments, combat vehicles, and household goods, etc. In addition, they operate a field printing plant. In order to accomplish their mission, it is imperative that the destination of these war fighting and readiness commodities are shipped, stored, and maintained accurately. There is absolutely no room for error because the depot needs to deploy equipment instantaneously.

The introduction of bar code technology has proven to greatly enhance the accuracy and quality of the shipping and receipt document process. The Xerox 4090 Page Printer has the capabilities to support bar code technology (used to print issue receipt and release documents for the depot).

Since the current process printer was installed, other subordinate processing systems have been developed and fielded which require the use of the Xerox printer. Mission requirements exceed the printing capabilities of the current system, thus, not allowing full advantage of the bar code technology for shipment and receipt of numerous items repaired, warehoused, or transported by Red River. It is crucial that the Xerox printer be made available to take advantage of other technological advances and overcome reductions in the work force. Timeframes for document processing are strict and inability to print shipping documents has a serious effect on Red River's production.

Economic Analysis is completed. The benefit to investment ratio is .35 and payback period is 13 years.

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Equipment - Replacement**  
**(\$ In Millions)**

B. Component/Business Area/Date Army, Depot Maintenance - Other				C. Line No. Item Description 97-M31 Page Printing System				D. Activity Identification Red River Army Depot				A. Budget Submission FY 1997 Budget Submission
March 1991				FY 96				FY 97				
				FY 95	FY 96	FY 96	FY 96	FY 97	FY 97	FY 97	FY 97	
Element of Cost				Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
Page Printing System										1	0.415	0.415
TOTAL										1		0.415

The current high-speed system is responsible for printing 86% of all depot computer reports on a production time basis. Equipment was operational in 1990 and has been printing 2.1 million pages per month, every month, 80% in duplex mode. The normal economic life cycle of five years will be exceeded in 1996. The high rate of production is causing frequent breakdowns which necessitate expensive maintenance and unacceptable down time.

Impact if not funded is that management report production schedules cannot be met. In addition, reports must be produced by other means which delays production. Due to the age of current printer, maintenance costs continue to escalate, repair parts are scarce, and depot is forced to use less economical manual processes.

Economic Analysis is completed. The benefit to investment ratio is .47; net present value of benefits is \$.237K; and, payback period is 9.9 years.

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Equipment - Productivity**  
**(\$ in Millions)**

B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996		FY 95		FY 96		FY 97		D. Activity Identification Corpus Christi Army Depot	
	Quantity	Total Cost	Unit Cost	Quantity	Unit Cost	Total Cost	Quantity	Total Cost	Unit Cost	Total Cost
Element of Cost										
Production Assembly Cell										
Shot Peening Operation									1.300	1.300
Microplasma Pulsating Welder									0.350	0.350
Installation									0.177	0.177
Miscellaneous									0.247	0.247
TOTAL										2.074

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Equipment - Productivity**  
**(\$ In Millions)**

A. Budget Submission  
FY 1997 Budget Submission

B. Component/Business Area/Date Army, Depot Maintenance - Other		March 1996		C. Line No. 97-M10		Item Description Indoor Radar Test Site Equipment		FY97		D. Activity Identification Tobyhanna Army Depot	
		FY 95		FY 96							
Element of Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost		
Indoor Radar Test Site Equipment				1	2.067	2.067					
<b>TOTAL</b>				1		2.067					

This equipment provides the depot with the most reliable, effective and efficient radar testing and antenna analysis system necessary to support mission requirements. Currently, the testing of the radar workload items is performed at two outside locations at the depot; the antenna pattern range and radar test site. These sites are 3000 to 6000 feet from the maintenance and electronic shop operations. High productivity losses are encountered during handling and relocation to and from the sites, especially during inclement weather. Outside ranges are shut down for safety reasons during inclement weather. The planned indoor radar test range is vital in providing the capability required to support the ongoing progression of state-of-the-art improvements and effectively support the radar workload requirements in today's competitive market.

To accomplish the plan for the indoor radar test range, an economic analysis was completed. The equipment cost is \$2,067,200 with a delivery date of December 1997. The economic analysis reflects a savings to investment ratio of 1.06 and payback in 7.65 years. If the project is not approved, Tobyhanna Army Depot (TOAD) will not be able to support new state-of-the-art antenna systems. Their ability to respond to mobility and rapid deployment requirements will be diminished.



**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Equipment - Productivity**  
**(\$ in Millions)**

B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996			C. Line No. 97-M24			Item Description Computer Numerical Control Punch Press			D. Activity Identification Tobyhanna Army Depot		
	FY 95			FY 96			FY 97					
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost			
Element of Cost												
Computer Numerical Control Punch Press							1	0.615	0.615			
TOTAL							1		0.615			0.615

Currently, the facility performs punch press operations to shape metal sheets used for electronic cabinets and metal boxes. It is a very time consuming process and a bottleneck to production activities. The CNC Punch Press eliminates the production bottleneck and reduces manufacturing costs. In addition, this press has a higher output (cuts more metal sheets at one time), costs less per part, and maintenance costs are reduced.

Economic Analysis is completed. The benefit to investment ration is 2.17; net present value of savings is \$.406K; and, payback period is 7.2 years.

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Equipment - Productivity**  
(\$ In Millions)

B. Component/Business Area/Date Army, Depot Maintenance - Other				March 1996		C. Line No. Item Description 97-M25 Aircraft Laser Paint Stripper		FY 96		FY 97		D. Activity Identification (Corpus Christi Army Depot)		A. Budget Submission FY 1997 Budget Submission	
Element of Cost				Quantity	Total Cost	Quantity	Total Cost	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Total Cost	Total Cost	Total Cost
Aircraft Laser Paint Stripper				1			3,244	3,244							
<b>TOTAL</b>						1	3,244		3,244						

Currently, a chemical stripper (methylene chloride) and a plastic media blast are being used. The chemical stripper is carcinogenic and mutagenic as defined by the Occupational Safety and Health Act. The blast causes excessive damage to composite surfaces, resulting in unnecessary and unacceptable pitting on the substrate surfaces. The new laser stripper eliminates the work of the composite repair facility resulting in decreased per unit cost to the customer. It also complies with Environmental Protection Agency and safety requirements for personnel to remove paint from composite surfaces. Laser stripping also eliminates the need to wear pressurized breathing systems and having devices installed on the air exhaust systems to capture the hazardous chemicals. Laser technology reduces the hazardous emissions into the air, water, and landfills by at least 90%.

The stripper eliminates expensive rework in the composite repair facility, cutting cost to customers. It removes the carcinogenic and mutagenic agents from the working atmosphere and reduces the need for hazardous waste management areas. In addition, the depot will be able to meet rising production schedules on composite aircraft and meet current and future environmental laws that pose a threat of monetary fines for noncompliance. This project eliminates large volumes of hazardous air pollutants and 23,000 pounds of methylene chloride each year. Furthermore, the Occupational Safety and Health Act and the Environmental Protection Agency are in the process of tightening controls pertaining to methylene chloride paint stripping and the amounts of hazardous waste being released into the atmosphere and landfills.

Impact if not funded is that the paint stripping process will not meet the rising production schedules of composite structures. Costs will escalate to pay for the monitoring and capturing of hazardous chemical strippers and by-products that need an outside contractor to remove the waste. Personnel will be required to wear bulky and restrictive breathing systems in the stripping bays. Overhead costs will drive up customer costs due to the rework in the composite repair facility.

Economic Analysis is completed. The benefit to investment ratio is 1.03; net present value of savings is \$.085K; and, payback period is 8.1 years.

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Equipment - Productivity**  
**(\$ in Millions)**

B. Component/Business Area/Date <b>Army, Depot Maintenance - Other</b>					C. Line No. 97-M26		Item Description Electronic Van Refurbishment		D. Activity Identification Tobyhanna Army Depot		A. Budget Submission FY 1997 Budget Submission	
					FY 96		FY 97					
					Quantity	Total Cost	Quantity	Unit Cost	Quantity	Unit Cost	Total Cost	
Electronic Van Refurbishment									1	0.875	0.875	
TOTAL									1		0.875	

The current facility performs refurbishment of electronic vans, but it was not designed to handle the size of current vans or the volume of work. Currently, three buildings and often parking lots, are used to perform the same functions. The electronic vans are brought into one building and the electronic modules and wiring harnesses are removed. Then, the vans are moved to another location and the structural racks are removed. The vans are moved outside to a waiting area where they are scheduled for sanding and blasting. They are then moved into a building where they are sanded and prepared for painting. When the vans are painted, they are moved to another building (existing paint booth is not large enough for the vans). In addition, the building is not designed for aisle traffic of this size or volume. Next, the vans are painted, cured, and rotated in order to paint the other half. Once again, the vans are moved to another area where they are rotated in order to hand paint the areas that are inaccessible in the paint booth. The booths are then moved to an area where the racks are reassembled, electronics installed, and the whole system is tested.

This project is to be installed in an existing building with minor modifications. The refurbishment will improve efficiency and maintain ability to perform electronic van maintenance as well as eliminate safety hazards. With this new equipment, Tobyhanna will meet anticipated workloads and be able to accommodate common van sizes. Savings occur with the new system by reducing the number of times the vans are handled. Once the electronics are removed, the van is moved to a central location, within the same building, where all the sanding, prep and painting steps occur. Therefore, most of the current handling is eliminated. In addition, the only remaining handling occurs with the overhead crane rather than trucking the items around under the care of several material movers.

Impact if not funded is that many efficiencies will not be realized and new maintenance and repair missions will be difficult to fulfill due to size and capacity restraints. Customer costs as well as maintenance costs will increase. Analysis is completed. The benefit to investment ratio is 3.1; net present value of savings is \$2.249M; and, payback period is 5.4 years.

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION									
Capital Budget Category: Equipment - Environmental Compliance (\$ in Millions)									
B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996		FY 95		FY 96		FY 97		D. Activity Identification All Depots
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	
Element of Cost									
Waste Minimization Cap Acct	1	0.400	0.400	1	1.554	1.554			
TOTAL	1		0.400	1		1.554			
<p>Waste Minimization Capitalization Account (WMCA) criteria is to reduce the generation of solid or hazardous materials and pay for itself over its useful life. Public Laws(101,190) passed in FY 1992 and rewritten in FY 1993 stated that installations had to budget one half of one percent of their FY 1988 maintenance revenue for this program. This represents various Waste Minimization Capital Account equipment required to maintain and meet environmental standards as directed by Federal and State multi-media environmental regulations. These are to promote environmentally safe and cost effective systems to comply with new regulatory requirements. Most address safety, Occupational Safety and Health Administration, Environmental Protection Agency, and State laws. This new equipment will increase reliability and productivity in many cases, enabling the depots to be more effective. Examples of the equipment to be purchased include painting, pre-wash, and water treatment systems well as air purifying units.</p> <p>If this equipment is not purchased by the end of FY 1996, we could be in violation of and out of compliance with Federal and State regulatory requirements and thus be subject to heavy fines.</p>									

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION									
Capital Budget Category: Equipment - Environmental Compliance									
(\$ in Millions)									
B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996		FY 95		FY 96		FY 97		D. Activity Identification Sierra Army Depot
	Quantity	Total Cost	Quantity	Unit Cost	Quantity	Total Cost	Quantity	Unit Cost	
Element of Cost									
Fume/Dust Collection System							1	0.200	
TOTAL							1	0.200	0.200

The Army was required to comply with Occupational, Safety and Health Agency's (OSHA) regulation to reduce the workers' exposure to nitroglycerin 0.1 MG/M3 by July 1, 1991. The use of respirators was a temporary fix at Sierra Army Depot. By 1998, both OSHA and the Environmental Protection Agency (EPA) will be producing more stringent regulations concerning chemical dusts associated with explosives. Specifications had to be written and engineers from Checkerboard engineering came to Sierra to solve the problem of getting rid of both dust and fumes. Other chemicals and dusts will be destroyed with this same system. Chemicals associated with work performed at Sierra ammunition maintenance facilities are trinitrotoluene, dinitrotoluene, nitrocellulose, paint thinners, denatured alcohol, degreaser, paste ink, spray ink, and blanco. The system should be in place by the end of the fiscal year 1998.

If this fume and dust extraction system is not in place by the end of fiscal year 1998, there will not be an adequate system for removing fumes and dust from the workplace, and there will be non-compliance with OSHA regulations which subjects the depot to heavy fines.

This project is exempt from an economic analysis; it is a class 1 environmental project.

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: ADPE & Telecommunications**  
**(\$ In Millions)**

B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996		FY 95		FY 96		FY 97		FY 98	
	Quantity		Unit Cost		Unit Cost		Unit Cost		Unit Cost	
	Total Cost		Total Cost		Total Cost		Total Cost		Total Cost	
Element of Cost	Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost
Sperry 5000 Systems Replacement										
Super-mini (Anniston AD)	1	0.400	1	0.400	1	0.400	1	0.400	1	0.400
Super-mini (Tobyhanna AD)	1	0.601	1	0.601	1	0.601	1	0.601	1	0.601
Super-mini (Corpus Christi AD)	2	0.400	2	0.400	2	0.400	2	0.400	2	0.400
Super-mini (Letterkenny AD)	2	0.400	2	0.400	2	0.400	2	0.400	2	0.400
Super-mini (Red River AD)	3	0.400	3	0.400	3	0.400	3	0.400	3	0.400
Super-mini (Sierra AD)	1	0.400	1	0.400	1	0.400	1	0.400	1	0.400
<b>TOTAL</b>			10			4.201				

Depots are presently using mandated systems such as Installation Equipment Management System (IEMS), Armed Forces Entitlement Systems (AFES), and Standard Army Contracting System (SAACONS).

Base operations systems are being run on obsolete Central Processing Units (CPUs) and saturated 5000's with insufficient disk storage and memory. The new super-mini computers process applications more expeditiously and efficiently. Immediate savings in hardware maintenance and software licensing occurs. In addition, the new super-mini could be upgraded to satisfy future requirements.

The replacement process began in fiscal year 1994 and continues through fiscal year 1996. Economic Analysis are available for the depots with savings investment ratios ranging from 2.0 to 3.0 for the super-mini's.

The impact if funding is not provided is processing of applications on saturated Sperry's will continue to be backlogged, eventually operations could come to a virtual standstill. The ability to process mandated applications will be severely impaired. Depots will be unable to load new versions of these mandated applications. Hardware maintenance and software licensing costs will continue to rise.

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: ADPE & Telecommunications**  
**(\$ In Millions)**

B. Component/Business Area/Date Army, Depot Maintenance - Other				C. Line No. Item Description 97-M18 Network File Servers				A. Budget Submission FY 1997 Budget Estimate			
				FY 96				FY 97			
				Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	D. Activity Identification Tobyhanna Army Depot	
Element of Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost		
Network File Servers				2	0.034	0.068					
Operating System Software				2	0.020	0.040					
Application Software				1	0.107	0.107					
<b>TOTAL</b>							5		0.215		

In the current process applications and data that should be shared by groups are located on each individual's machine. In the current process. If someone needs to share data with someone else, they must transport the data on a floppy disk. The file server will be a central repository of data that can be shared by all those connected to the network. Replacement of individual PC's with network file servers will tie the existing and planned computers together to share common resources such as software, databases, and printing facilities. The transfer and distribution of mail and files will be facilitated, resulting in improved communications and greater productivity. Tobyhanna Army Depot (TOAD) Directorate of Maintenance is the activity receiving the equipment. Estimated completion date is January 1996.

An economic analysis exemption has been granted. A cost analysis and comparison of alternatives was performed. Without the power of the file servers the directorate has to continue to rely on redundant single level applications, and will be unable to take advantage of the efficiencies and productivity of networking. Continuing to use the present system will eventually result in the inability to perform essential mission related tasks as a consequence of reduced manpower without an offsetting increase in productivity.

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: ADPE & Telecommunications**  
**(\$ In Millions)**

B. Component/Business Area/Date Army, Depot Maintenance - Other		March 1996		C. Line No. Item Description 97-M19 Personal Computers		FY 96		FY 97		D. Activity Identification Tobyhanna Army Depot		A. Budget Submission FY 1997 Budget Estimate
Element of Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost			
Personal Computers				16	0.003	0.040						
File Servers				1	0.010	0.010						
Communications Hardware				1	0.010	0.010						
System Software				1	0.015	0.015						
Application Software				1	0.054	0.054						
<b>TOTAL</b>				<b>20</b>		<b>0.129</b>						

Currently, obsolete 286 PC's are being utilized. These PC's can only run the older versions of application software. The machines break down frequently, and are not economical to repair. Replacement 486's have the ability to run the more advanced software applications, such as Windows operating systems as well as the latest versions of productivity enhancing application software. Acquisition of replacement machines will bring Tobyhanna Army Depot (TOAD) into compliance with requirements for standardization of hardware, software, and communications.

An Economic Analysis exemption has been granted. cursory cost analysis and comparison of alternatives has been performed.

Without the power of the 486 personal computer replacements the depot is unable to take advantage of the efficiencies and productivity enhancing features of the newer application software. Current 286's cannot be used for Executive Information System (EIS) and other mandated systems which are on the way. TOAD will be unable to offset reduced manpower with increases in productivity.



BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION										A. Budget Submission FY 1997 Budget Estimate	
Capital Budget Category: ADPE & Telecommunications (\$ In Millions)											
B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996			C. Line No. Item Description 97-M20 Computer Assisted Eng Expansion			FY97			D. Activity Identification Tobyhanna Army Depot	
	FY 95		Total Cost	Quantity	FY 96		Total Cost	Quantity	Unit Cost		
	Quantity	Unit Cost			Unit Cost	Quantity					
Element of Cost											
Computer Assisted Eng Expansion				1	0.945		0.945				
TOTAL				1			0.945				

The Production Engineering Division produces drawings using a Computer Assisted Engineering (CAE) system. The current system is more than eight years old, is obsolete, and has reached the end of its useful life. It is anticipated that the expanded CAE system increases accessibility of drawing data to the manufacturing engineers, numerical control programmers, and technical publications personnel. It provides the hardware necessary to automate the development of manufacturing engineering process plans that will be downloaded to the technicians on the shop floor. This especially benefits the fabrication side of the Tobyhanna Army Depot (TOAD) enterprise which at times approximates nearly 50% of its workload.

An economic analysis has been performed. Savings to Investment ratio is 2.71. Present value of savings is \$2,476 and the payback period is approximately three years. Annual savings is estimated at \$309,000.

If not funded is Tobyhanna Army Depot will be unable to expand automation of the manufacturing engineering process plans to the shop floor. If TOAD is unable to replace obsolete CAE equipment, scarce manpower will be wasted using obsolete CAE equipment, adding to costs. Obsolete CAE equipment also delays completion of projects. TOAD will be unable to meet the demands of its customers for fast turnaround of fabrication projects such as communications shelters which are often requested on short notice in response to various world crises.

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: ADPE & Telecommunications**  
**(\$ in Millions)**

B. Component/Business Area/Date			March 1996		FY 95		FY 96		FY 97		D. Activity Identification	
Army, Depot Maintenance - Other							97-M21		Fiber Optic LAN		Corpus Christi Army Depot	
Element of Cost			Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
Fiber Optic LAN												
Phase I, II, III, and IV			1	7.760			7.760			1.286	1.286	
Phase V and VI									1			
TOTAL			1		7.760	1		7.760	1		1.286	

The current broadband Local Area Network (LAN) is a proprietary SYTEC 2000 system. This type of system will not provide future enhancement and integrated support services to effectively interface with other commands. The operational effectiveness of the current LAN is not in accordance with current Army regulations. The anticipated benefits are to rehabilitate and extend the existing LAN through Integrated Services Digital Network (ISDN) Standards. This initiative will support Department of Army, Major Command installation architecture requirements. The projected start date is fiscal year 1996 with an anticipated completion date of fiscal year 1999.

If this multi-year project is not funded, the Command will be unable to support Department of Defense and Department of Army's mandated Installation Information Transfer System (IITS) policy. Also, this requirement is critical in the integration of automation services to the functional (logistical and maintenance) areas throughout the depot. The activities to receive the equipment and system are all depot functions in support of logistics and maintenance operations. The Fiber Optic Network is required to implement the Corporate Information Management (CIM) Defense Depot Maintenance Information System (DDMIS).

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION Capital Budget Category: ADPE & Telecommunications (\$ in Millions)										A. Budget Submission FY 1997 Budget Submission	
B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996			C. Line No. 97-M23		Item Description Depot Maintenance System (DMS)		D. Activity Identification Various Depots			
	FY 95		Total Cost	FY 96		FY 97		Total Cost			
	Quantity	Unit Cost		Quantity	Unit Cost	Quantity	Unit Cost				
Depot Maintenance System (DMS) Hardware	1	2,017	2,017	1	4,364	4,364	1	4,140	4,140		
TOTAL	1		2,017	1		4,364	1		4,140		
<p>Narrative Justification: The funds are to support the fielding of the DMS suite of migration applications being developed by the Joint Logistics Systems Center (JLSC) for Army maintenance depots. During the recent budget review, the responsibility for acquisition of hardware for Fiscal Years 1995-1997 was transferred from the JLSC to the Military Services.</p> <p>The Depot Maintenance System (DMS) Program is using an evolutionary program strategy to deliver the enterprise functionality to support improved business processes required for effective depot maintenance operations across the Department of Defense. This functionality will be provided through the development of a suite of applications with critical interfaces to legacy and other major systems. These applications address major end item management, commodities repair, and specialized support (tool management, hazardous material management, enterprise information management, and interservice workload tracking). The objective is to provide to the user a suite of service specific migration applications with basic interfaces to the legacy environment. DMS will provide the Services a revolutionary step forward in functional capability and automation, including a systems infrastructure upon which to make significant strides in business process improvement. Benefits will be realized in two primary areas: business performance and information systems costs. Business performance will be enhanced through the process improvements delivered by DMS applications to support the Depot Maintenance Improved Functional Baseline (IFB). These improvements include:</p> <p>Reducing cycle times to make more assets available to support the war fighter. Providing accurate delivery schedules to support mission planning. Reducing expenses and inventory to lower the cost to the war fighter. Improving readiness, sustainment, and interoperability for the war fighter. Reducing labor through better resource and work planning. Reducing overhead through elimination of non value-added activity. Improving schedule performance through more complete asset visibility.</p> <p>Once implementation is complete and legacy applications are reduced, ADP costs will come down markedly.</p> <p>Without this investment, needed improvements to the depot/shipyard business process and infrastructure will not be achieved. Implementing enhanced repair and overhaul capabilities is a critical contribution toward improving mission readiness in a downsizing environment. As the DoD weapons systems continue to age, reductions to the workforce continue and the number of depots/shipyards are reduced, efficient and effective organic repair capability is of increasingly growing importance to DoD in maintaining weapon systems combat readiness. In order to meet this demand, the depot/shipyard community needs to dramatically strengthen its business processes and the associated information infrastructure (hardware).</p>											

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: ADPE & Telecommunications**  
**(\$ In Millions)**

B. Component/Business Area/Date Army, Depot Maintenance - Other		March 1996		FY 95		FY 96		FY 97		D. Activity Identification Red River Army Depot	
		Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
Element of Cost											
Engineer PC CADD Upgrade								1	0.161	0.161	
TOTAL								1		0.161	

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: ADPE & Telecommunications**  
(\$ in Millions)

B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996			FY 95			FY 96			FY 97			D. Activity Identification Anniston Army Depot
	C. Line No. 97-M28			Item Description Encrypted Trunk Radio Network			FY 96			FY 97			
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
Element of Cost													
Encrypted Trunk Radio Network													

The existing UHF non-tactical radio equipment with digital, trunking radios, operating as a total depot trunked radio is ten years old. This project upgrades and replaces depot-wide non-tactical radios that are at or exceeding the life cycle limit. This network project provides the basic trunking system and network infrastructure, portable and mobile radios for highly critical emergency users plus facilities engineering personnel. In addition, the trunking project reduces the man-hours and repair costs associated with maintaining the existing equipment. However, the workload increase is associated with new missions at Anniston, primarily in the Chemical Stockpile Disposal Program (CSDP).

The existing encrypted radio networks have succumbed to more advanced communications equipment and are becoming increasingly susceptible to transmission and equipment failure. The existing radio networks are incompatible and jeopardize the safety and welfare of personnel and property. Moreover, the cost to maintain the status quo is steadily increasing due to frequent equipment failures and breakdowns. The short-comings of the existing networks, e.g., interference, garbled and distorted messages were evident in May 1993 during the Chemical Accident/Incident Response Actions (CAIRA) Service Response Force Exercise designed to test the depot's emergency preparedness and readiness capabilities. These problems greatly hindered radio communications in the field and rendered one of the critical networks useless.

Army Regulation 380-19 requires sensitive radio communication's must be encrypted using the Data Encryption Standard (DES). There are six depot radio networks that use the DES and these networks are not totally compatible. This requires the purchase of additional radio equipment, thus, increasing confusion during emergencies and increases procurement, installation, and maintenance costs. As the age of the current radio equipment increases, the potential for the loss of life and property also increases.

This project is state-of-the-art radio communications equipment. Allows the reutilization of existing radios to replace radios in operation for over eight years on non-critical networks where the DES encryption is not required. Emergency procedures and communications will be greatly improved. The trunking network provides an automated systems controller that enables the grouping of radio users for any specified emergency. In addition, the new standardized equipment reduces maintenance and labor costs. This network eliminates the need for over 160 mobile radios, through the use of hand-held portable radios. This allows for communications among individuals as well as vehicles.

Economic Analysis is completed. The benefit to investment ratio is 1.02; net present value of savings is \$.026K; and, payback period is 7.5 years. Although the BIR is 1.02, there are some facts to consider. The current radios have exceeded their life cycle replacement life of ten years. If the encrypted trunked radio network is not fielded in FY 96, the depot must begin to replace the existing radios. The current dollar value to replace existing radios is \$1.5M. If we do this, we will not be taking advantage of new technology with lower operational costs. Instead, we will be providing the depot radio users with old technology with incompatibilities and problems mentioned above.

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: ADPE & Telecommunications**  
**(\$ In Millions)**

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION													A. Budget Submission		
Capital Budget Category: ADPE & Telecommunications													FY 1997 Budget Submission		
(\$ in Millions)															
B. Component/Business Area/Date Army, Depot Maintenance - Other		March 1996			FY 95			FY 96			FY 97		D. Activity Identification Corpus Christi Army Depot		
		Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost		
Element of Cost															
Laser Digitizing System											1	0.530		0.530	
TOTAL											1			0.530	

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Minor Construction**  
**(\$ in Millions)**

A. Budget Submission

B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996			C. Line No. 97-M22			Item Description Minor Construction Projects			FY97			D. Activity Identification		
	FY 95			FY 96			FY 97								
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost			
Minor Construction Projects															
Anniston Army Depot (ANAD)	1	0.288	0.288	1	0.967	0.967	1	1.790	1.790	1	1.790	1.790			
Blue Grass Army Depot (BGAD)	1	0.597	0.597	1	0.748	0.748	1	0.340	0.340	1	0.340	0.340			
Corpus Christi Army Depot (CCAD)	1	0.609	0.609	1	0.313	0.313	1	1.130	1.130	1	1.130	1.130			
Letterkenny Army Depot (LEAD)	1	0.755	0.755	1	1.009	1.009	1	0.340	0.340	1	0.340	0.340			
Red River Army Depot (RRAD)	1	0.300	0.300	1	0.536	0.536	1	2.040	2.040	1	2.040	2.040			
Seneca Army Depot (SEAD)	1	0.843	0.843	1	1.767	1.767	1			1	2.260	2.260			
Sierra Army Depot (SIAD)	1	1.480	1.480	1	1.051	1.051	1			1	2.720	2.720			
Tobyhanna Army Depot (TYAD)	1	0.330	0.330	1	0.609	0.609	1			1	0.680	0.680			
Tooele Army Depot (TEAD)	1	0.035	0.035	1			8			8					
<b>TOTAL</b>	<b>9</b>		<b>5.237</b>	<b>8</b>		<b>7.000</b>						<b>11.300</b>			

The above figures represent construction and alteration work costing under \$300,000. Projects costing over \$300,000 are included in our Military Construction, Army (MCA) Program. These construction and alteration projects are required to promote cost effectiveness and comply with regulatory requirements that address safety, Occupational Safety and Health Agency (OSHA), Environmental Protection Agency (EPA), and security violations. Examples of construction and alteration projects are: Construct building at Industrial Waste Treatment Plant, construct general ammo storage facility, electrical substation for hydraulic unit, electrical service upgrade for composite shop, and lightning protection for ammunition docks. Ammunition depot operations is an enduring mission at Tooele Army Depot.

Failure to receive this funding could result in the following:

- Reduction in mission capacity.
- Failure to meet present and future workload requirements.
- Inability to comply with environmental requirements.

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Reliability, Maintainability & Supportability Mod**  
**(\$ in Millions)**

B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996			C. Line No. Item Description 97-R1 AH-64 TADS Azimuth Actuator			D. Activity Identification US Army Aviation and Troop Command			A. Budget Submission FY 1997 Budget Submission
	FY 95		Quantity	FY 96		Quantity	FY 97		Total Cost	Total Cost
	Unit Cost	Total Cost		Unit Cost	Total Cost		Unit Cost	Total Cost		
Element of Cost										
AH-64 TADS Azimuth Actuator									1.600	
<b>TOTAL</b>									<b>1.600</b>	

Field failure data indicates the azimuth drive assembly fails at an average of 3.6 years of field life. Corrosion and gear wear are evident in virtually all failures of this assembly. The majority of fielded systems have been in service over 3.6 years resulting in an increased rate of azimuth drive failures. This trend will continue without the current modification.

This Value Engineering Change Proposal will modify the Target Acquisition Data System (TADS) azimuth drive assembly to prevent water intrusion and premature gear failures as follows:

- 1) Integrate a shaft seal into the azimuth actuator assembly to prevent water intrusion.
- 2) Change actuator assembly pinion gear material from 416 stainless steel to 13-8 steel to improve wear characteristics.
- 3) Decrease height of the anti-backlash element, thereby increasing height (contact area) of drive pinion to improve wear characteristics.

SIR 10.00



**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Reliability, Maintainability & Supportability Mod**  
**(\$ in Millions)**

B. Component/Business Area/Date		March 1996		C. Line No.		Item Description		D. Activity Identification	
Army, Depot Maintenance - Other				97-R2		AH-64 PNVS Azimuth Actuator		US Army Aviation and Troop Command	
		FY 95		FY 96		FY 97			
Element of Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
AH-64 PNVS Azimuth Actuator									1,600
<b>TOTAL</b>									<b>1,600</b>

Field failure data indicates the azimuth drive assembly fails at an average of 3.2 years of field life. Corrosion and gear wear are evident in virtually all failures of this assembly. The majority of fielded systems have been in service over 3.2 years resulting in an increased rate of azimuth drive failures. This trend will continue without this change.

This Value Engineering Change Proposal will modify the Primary Night Vision Sight (PNVS) azimuth drive assembly to prevent water intrusion and premature gear failure as follows:

- 1) Integrate face seals on the mounting plate and gear housing.
- 2) Seal union of components (i.e., motor, tach, brake, and resolver) with an approved adhesive in place of lock-tite while maintaining mechanical back-up features currently used.
- 3) Increase length of 1.9375 diameter pilot from .188 to .350 thus eliminating water retention.

SIR 4.60

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Reliability, Maintainability & Supportability Mod**  
(\$ in Millions)

B. Component/Business Area/Date Army, Depot Maintenance - Other		March 1996	C. Line No. Item Description 97-R3 UH-60 Tail Rotor Blade Assembly		FY 96		FY 97		D. Activity Identification US Army Aviation and Troop Command	
Element of Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
UH-60 Tail Rotor Blade Assembly										
<b>TOTAL</b>									0.137	

The BLACK HAWK helicopter tail rotor blade is an integral part of the tail rotor assembly. It is built around two graphite composite spars running from tip-to-tip and crossing each other at the center to form the four blades. The blade spars are covered with cross-ply fiberglass to form the airfoil shape. Polyurethane and nickel abrasion strips are bonded to the leading edge of the blades. There are four problems inherent to this design -- water entrapment in the honeycomb core of the outer half of the blade, relatively low impact resistance, leading edge polyurethane wear inboard of the strip, and separation of the trailing edge skin to skin bond as a result of pivot bearing retainer disbond.

The water entrapment in the honeycomb core of the outer half of the blade on the tail rotor causes blade imbalance, skin cracking, and separation of the trailing edge skin. As a result, removal of the tail rotor blades (P/N 70101-31000-043, NSN 1615-01-113-8188) is necessary.

Separation of the trailing edge skin to skin bond as a result of pivot bearing retainer disbond allows the retainer to migrate outboard and separate the skin bond.

Modification of the nickel erosion strip to extend 7.5 inches inboard will reduce leading edge polyurethane erosion and will improve the rate of deterioration of the blade erosion protection system.

This initiative will improve the seal configuration, the water drainage path, the migration of the retainer through the skin, the impact tolerance, and the rate of deterioration. A wrap around ply of fiberglass at the trailing edge will reduce the migration damage. The Mean Time Between Repair (MTBR) will increase from 1892 to 2481 hours.

SIR 10.00

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Reliability, Maintainability & Supportability Mod**  
(\$ In Millions)

A. Budget Submission

B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996			C. Line No. Item Description 97-R4 AH-64 Primary IR Nozzles: Rivets to Bolts FY97			D. Activity Identification US Army Aviation and Troop Command		
	FY 95		Total Cost	FY 96		Total Cost	FY 97		Total Cost
	Quantity	Unit Cost		Quantity	Unit Cost		Quantity	Unit Cost	
Element of Cost									
AH-64 Primary IR Nozzles: Rivets									0.543
<b>TOTAL</b>									0.543

This initiative involves changing rivets to bolts on the Secondary Infrared (IR) Nozzle, allowing access to the Primary IR Nozzle without the need to remove the aircraft engine. This will eliminate the need for additional personnel support and special equipment to make relatively simple repairs. Total time to repair the nozzle will be reduced from 16 man-hours to approximately 2 man-hours. In addition, the requirement to perform a test flight after engine removal is no longer necessary, which saves an additional hour.

There are 188 rivets holding the Apache Secondary Exhaust Nozzle to the aircraft frame assembly. This initiative will remove all the rivets and install a bolt in every fourth rivet hole. A doubler assembly will be constructed with nut plates and installed forward of the frame assembly. The bolts will be installed through the secondary nozzle and frame assembly, into the doubler containing the nut plates. This will allow the Secondary Nozzle to be removed -- without the need to "drill-out" rivets -- by simply removing the bolts.

The Primary IR Nozzles, which are installed directly aft of the aircraft engines, are subject to cracking. The cracking is a direct result of the rapid temperature changes, primarily hot to cold, during aircraft starting and shutdown. During military operations, the need to start and shutdown the aircraft numerous times, makes the nozzles more susceptible to cracking. Presently, the only way to repair the Primary Nozzle is to remove the aircraft engine. Once the engine is removed, the nozzle may then be removed and repaired. After the nozzle and engine are reinstalled, the aircraft is required to conduct a test flight to ensure the proper installation of the engine.

This modification will be installed on the entire fleet of Apache aircraft. There are two installations per aircraft, one for each engine. The modification would remain on the Longbow aircraft configuration.

SIR 10.00

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Reliability, Maintainability & Supportability Mod**  
(Dollars in Millions)

B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996			C. Line No. Item Description 97-R5 AH-64 Primary Heat Suppressor Materials			D. Activity Identification US Army Aviation and Troop Command		
	FY 95		Quantity	FY 96		Quantity	FY97		Total Cost
	Unit Cost	Total Cost		Unit Cost	Total Cost		Unit Cost	Total Cost	
Element of Cost									
AH-64 Primary Heat Suppressor M									0.922
TOTAL									0.922

This modification will change the basic material of the heat suppresser to a more temperature and vibration tolerant material. In addition, it will redesign the current heat suppresser mounting bracket to eliminate the unique left and right hand suppresser assemblies. These changes will be incorporated on new procurement of the heat suppressers. There will be no retrofit.

Number of aircraft affected: 732  
2 suppressers per aircraft

SIR 6.30

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION									
Capital Budget Category: Reliability, Maintainability & Supportability Mod (Dollars in Millions)									
B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996		FY 96		FY 97		D. Activity Identification US Army Aviation and Troop Command		
	FY 95		FY 96		FY 97				
Element of Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
AH-64 Servo Actuator Boots									
TOTAL									1,248
A protective boot will be installed over the piston rod and upper seal of the servocylinder protecting it from external contaminants and induced damage which can lead to actuator seal leakage. This change will be incorporated at depot level through attrition of the servocylinders. In addition, the packaging and handling instructions for the servocylinders will be improved to prevent damage, contamination and actuator corrosion during shipping. Savings will accrue through a reduction in the number of parts which must be procured and stocked, and through a reduction in the number of maintenance actions.									
Number of aircraft affected: 732									
SIR 5.17									

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Reliability, Maintainability & Supportability Mod**  
(Dollars in Millions)

A. Budget Submission

B. Component/Business Area/Date  
Army, Depot Maintenance - Other

C. Line No. Item Description  
97-R7 T700-GE-701C Stage 1 Turbine Blade

D. Activity Identification  
US Army Aviation and Troop Command

Element of Cost	FY 95		FY 96		FY 97		Total Cost
	Quantity	Unit Cost	Quantity	Unit Cost	Quantity	Unit Cost	
T700-GE-701C Stage 1 Turbine BI							0.320
<b>TOTAL</b>							<b>0.320</b>

The objective of this initiative is to increase the engine on-wing life by incorporating material and design changes to the stage 1 turbine blades based on the commercial CT7-9 N5 blade design.

The T700-GE-701C Engine is a major cost driver for both the AH-64D Apache and the UH-60L BLACK HAWK helicopters. Current 701C engines have a low Mean Time Between Repair (MTBR) of 1100 hours, primarily due to degraded stage 1 turbine performance.

Advances in commercial turbine blade materials have demonstrated that durability improvements can be achieved in the current DSR 108 design stage 1 turbine blades. The blades are an integral part of the "gas generator matched assembly" (NSN 2840-01-319-0957) which is replaced as a unit at field level. This program will design a Mono Crystal N5 alloy stage 1 turbine blade based upon the current CT7-9 N5 commercial blade with leading edge film cooling and optimization of the serpentine turbulator blade cooling circuit. An increase in the MTBR of 150 hours will result with a corresponding reduction in the number of assemblies removed for performance in the field. All improvements will be applied by attrition at the depot.

SIR 3.81

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION										A. Budget Submission	
Capital Budget Category: Reliability, Maintainability & Supportability Mod (Dollars in Millions)											
B. Component/Business Area/Date Army, Depot Maintenance - Other		March 1996		FY 95		FY 96		FY 97		D. Activity Identification US Army Aviation and Troop Command	
		Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
Element of Cost											
AH-64 Main Rotor Pitch Housing										0.185	
TOTAL										0.185	
<p>The current Teflon/fabric bushing will be changed to an electrolyses nickel plated bushing impregnated with Teflon. This will improve the bushing's damage and wear capability and allow change in the bushing tolerances to eliminate the existing line ream requirement. The outer pitch housing shims will also be eliminated by incorporating the shims into the new bushing design. The bushing will then become replaceable at aviation intermediate maintenance (AVIM) level. The change will be incorporated on new production pitch housing assemblies. Existing pitch housings will be replaced by attrition.</p>											
<p>Number of aircraft affected: 732</p>											
<p>SIR</p>											
<p>6.40</p>											

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION										A. Budget Submission	
Capital Budget Category: Reliability, Maintainability & Supportability Mod (Dollars in Millions)											
B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996		FY 95		FY 96		Item Description AH-64 Environmental Control Unit Sensor FY97		D. Activity Identification US Army Aviation and Troop Command		
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost		
Element of Cost											
AH-64 Environmental Control Unit									0.081		
TOTAL									0.081		

The objective of this initiative is to reduce the frequency of replacement of the Environmental Control Unit (ENCU) temperature control/sensor unit. This unit (NSN 6685-01-182-5130) is a solid state electrical device. Electronic components, including a circuit card assembly, are mounted to the body/heat sink. A metal cover is installed over the electronic components. The function of the temperature sensor is to control the temperature of air being discharged from the ENCU. Moisture tends to collect in the area of the power transistor causing premature failure due to corrosion. Failure of the sensor results in improper positioning of the temperature control valve.

This initiative will apply a protective sealant to the control/sensor metal cover during manufacture, and by retrofit to fielded units. A trial of the sealant approach with the Florida National Guard has been underway since 1989. Sealing of the temperature control unit has demonstrated a 67% decrease in sensor unit replacement frequency.

SIR 6.49



BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION										A. Budget Submission	
Capital Budget Category: Reliability, Maintainability & Supportability Mod (Dollars in Millions)											
B. Component/Business Area/Date Army, Depot Maintenance - Other	FY 95		March 1996		C. Line No. 97-R10		Item Description AH-64 Main Rotor Blade Surface Prep.		D. Activity Identification US Army Aviation and Troop Command		
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Quantity	Unit Cost	Quantity	Unit Cost	Total Cost	
Element of Cost											
AH-64 Main Rotor Blade Surface										0.470	
TOTAL										0.470	

The purpose of this initiative is to improve the cleaning of mating surfaces to improve bonding before applying the current adhesive to the spars of the rotor blade. The process will improve surface preparation, enhancing the quality and durability of the current bond. The change will be incorporated for new blades and will be included on fielded blades by attrition when returned to the depot.

Number of aircraft affected: 732 at 4 blades per aircraft

SIR 10.00

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION										A. Budget Submission	
Capital Budget Category: Reliability, Maintainability & Supportability Mod (Dollars in Millions)											
B. Component/Business Area/Date Army, Depot Maintenance - Other		March 1996		FY 95		FY 96		FY 97		D. Activity Identification US Army Aviation and Troop Command	
Element of Cost		Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
AH-64 Main Rotor Lead/Lag Link										0.425	
TOTAL										0.425	
<p>The purpose of this initiative is to improve maintainability of the main rotor assembly. Tolerances will be changed to allow bushing replacement at aviation intermediate maintenance (AVIM) level, saving depot repair and shipping costs. AVIM level tooling and technical manual maintenance change procedures will be part of the modification. The Teflon/fabric bushing will also be changed to an electrolysis nickel plated bushing impregnated with Teflon. This will improve bushing damage and wear capability, preventing significant removals. The change will be on new bushings which will be replaced on aircraft through attrition. The lead-lag damper and blade attachment will also be changed from bronze/aluminum to stainless steel, which will reduce wear and be more resistant to damage. This modification will be performed on new bushings and replaced through attrition.</p>											
<p>Number of aircraft affected: 732 at 4 links per aircraft</p>											
<p>SIR 5.30</p>											

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**

Capital Budget Category: Reliability, Maintainability & Supportability Mod  
(Dollars in Millions)

A. Budget Submission

B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996			C. Line No. 97-R12			Item Description AH-64 PNVS Elevation Belt Assembly			FY97			D. Activity Identification US Army Aviation and Troop Command		
	FY 95			FY 96			FY 97			FY 97					
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost			
Element of Cost															
AH-64 PNVS Elevation Belt Asse												0.900			
<b>TOTAL</b>												0.900			

Damage to the Elevation Belt Assemblies results in system downtime for troubleshooting and repair. This modification will prevent damage to the Primary Night Vision Sight (PNVS) Elevation Belt Assemblies by mechanically shielding them from inadvertent impacts during shroud removal and handling.

Port Side -- Replace the three socket head cap screws (NAS1352-04-6P) with threaded standoffs of sufficient height to clear the pulleys. A sheet metal detail will be attached to the standoffs and cover the unprotected area of the belt assembly between the pulleys.

Starboard Side -- A detail will be designed which mounts on the exterior of the elevation mirror frame assembly and between the bushings. The detail will be clamped and bonded to make it an integral part of the frame assembly. A sheet metal detail will attach to the clamped-on detail and cover the unprotected area of the belt assembly between the pulleys. System reliability is improved as a result of this change. System maintainability is affected by this change; however, increases in PNVs repair time lines are negligible. Interchangeability is not affected by this change.

Retrofits will be accomplished upon return of the affected assemblies to the depot.

SIR 10.00

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION										A. Budget Submission	
Capital Budget Category: Reliability, Maintainability & Supportability Mod (Dollars in Millions)											
B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996		C. Line No. 97-R13		Item Description AH-64 Day Shroud Harness		FY 96		FY 97		D. Activity Identification US Army Aviation and Troop Command
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost		
Element of Cost											
AH-64 Day Shroud Harness											
TOTAL										0.420	
<p>This modification will prevent breakage of the anti-ice shroud harness by installing a stainless steel strain-relief wire into the harness cable. The strain-relief will prevent wire breakage caused by overstresses during shroud removal and replacement. System reliability is improved as a result of this change while system maintainability and interchangeability are not affected.</p> <p>Retrofits will be accomplished upon return of the affected Day Shroud to the depot.</p>											
<p>SIR 3.70</p>											

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Reliability, Maintainability & Supportability Mod**  
(Dollars in Millions)

B. Component/Business Area/Date Army, Depot Maintenance - Other				C. Line No. Item Description 97-R14 AH-64 Engine Nose Gearbox Oil Pump				D. Activity Identification US Army Aviation and Troop Command				A. Budget Submission
				FY 96				FY97				
Element of Cost				Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
AH-64 Engine Nose Gearbox Oil P												
TOTAL									0.310			0.310

The nose gearbox oil pump will be modified to allow installation of a replaceable pump cartridge. This will prevent the disposal of the otherwise still usable pump housing -- which is currently the procedure. The change will also add a filter screen at the pump inlet and improve internal circulation of lubricant to the oil pump bearings. The change will reduce nose gearbox field removals, reduce nose gearbox depot returns, and reduce the cost of depot repair of the nose gearbox through a reduction in replacement cost of the new cartridge pump. The change will be incorporated through attrition at the depot.

Number of aircraft affected: 732 at 2 units per aircraft

SIR 7.00

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION										A. Budget Submission	
Capital Budget Category: Reliability, Maintainability & Supportability Mod (Dollars in Millions)											
B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996		FY 95		FY 96		Vehicle Intercom System (VIS) Headset FY97		D. Activity Identification US Army Communications and Electronics Command		
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost		
Element of Cost Vehicle Intercom System (VIS) He											
TOTAL									1.169		
<p>Currently, the failure or degradation of only one earphone requires the replacement of both earphones. This is both impractical and costly. It is proposed that a redesign/reengineering effort be established to allow the independent removal/replacement of either the left or right earcup. The present design calls for discarding the entire headset assembly, even though a failure usually involves only one side of the pair of earcups. An engineering analysis will be performed to qualify the addition of a connector to the existing headset, which would allow removal and replacement of individual earcup assemblies. The redesign effort includes associated requirements of developing drawings, test and evaluation of the proposed redesign, and logistics support for implementation of the redesign.</p> <p>Individual earcup assemblies can be replaced upon failure at a cost only half that of replacing complete headsets. Effectively, this will double the Mean Time Between Failures, thereby decreasing life cycle O&amp;S headset costs by 35%. The replacement of only one earcup assembly will be done either in an organizational shop or by the soldier himself. The headsets are utilized in a variety of combat vehicles including the M1A1 and M1A2 tanks, the Infantry Fighting Vehicle (IFV), and the M109 Paladin.</p>											

SIR 10.00

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION										A. Budget Submission	
Capital Budget Category: Reliability, Maintainability & Supportability Mod (Dollars in Millions)											
B. Component/Business Area/Date Army, Depot Maintenance - Other		March 1996		FY 95		FY 96		FY 97		D. Activity Identification US Army Communications and Electronics Command	
				C. Line No. 97-R16		Item Description Linear Drive Cooler Life Improvement					
Element of Cost		Quantity		Unit Cost		Total Cost		Quantity		Unit Cost	
Linear Drive Cooler Life Improvem											
TOTAL										0.937	
This initiative would replace certain linear coolers having a 4,000 hour Mean Time To Failure (MTTF) with 10,000 hour MTTF linear coolers, through forward fitting first and second generation thermal imaging systems on the Aviation B-Kit, HTI, and ITAS. The engineering analysis and redesign efforts for this modification address the use of flexure springs to improve service life. Form, fit and function of the coolers are not affected; therefore system applications will not change.											
Economic analyses for two of the five linear drive coolers in the Army DoD inventory (1 and 1.75 Linears) indicate that a 60% operating cost reduction can be achieved by forward fitting 10,000 hour MTTF linear drive coolers into programs planned with 4,000 MTTF linear drive coolers. Linear drive coolers have already been developed and qualified for system use and are being used in several Army, Navy and Air Force programs.											
Although the linear drive technology has significantly improved the life of the coolers used in thermal systems by as much as 10 times, the cooler is still the least reliable component in the system. When the cooler fails, the thermal receiver unit is removed from the system platform and returned to direct/intermediate support for repair. The cooler/dewar is replaced in the Line Replaceable Unit and sent back to the depot. The cooler is removed, thrown away, and replaced with another unit.											
SIR										7.10	

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION										A. Budget Submission	
Capital Budget Category: Reliability, Maintainability & Supportability Mod (Dollars in Millions)											
B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996			C. Line No. Item Description 97-R17 AN/VVS-2 NV Viewer Needle (Purge) Valve			D. Activity Identification US Army Communications and Electronics Command				
	FY 95		FY 96	FY 97		FY 98		FY 99			
Element of Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost		
AN/VVS-2 NV Viewer Needle (Pur									0.241		
TOTAL									0.241		
<p>The objective of this initiative is to replace the existing needle (purge) valve design with a new one which employs a rubber o-ring between a new needle (purge) valve and the viewer housing. This will significantly improve the seal to block the leakage of nitrogen, and make a purge of the viewer necessary only once a year. The manufacturer of the viewer has already designed a new valve and proposed its adoption as a Value Engineering Change Proposal. Manufacturer's testing has demonstrated a significant reduction in the VVS-2's leakage rate.</p> <p>The existing needle (purge) valve on the VVS-2 night vision viewer has a poor seal and permits too much loss of nitrogen gas. Because of the loss of gas pressure, which creates moisture problems, the large quantity of VVS-2 viewers in service with the Army require fresh nitrogen purges every six months. A new valve design, which incorporates a rubber o-ring, greatly improves the gas seal and permits the re-purging cycle to be extended to one year.</p> <p>The VVS-2 is an image intensification night vision device. It is widely used on Abrams, Bradley, Paladin, M113 APC, M88 Tracked Recovery Vehicle, the M728, and Marine Corps vehicles. The viewers use optics which are exposed to rapidly varying temperatures and moisture levels during missions. To avoid fogging of the optics from internal condensation, the housings holding the optics are charged with nitrogen gas to maintain a positive overpressure of nitrogen inside the viewer housing. Each viewer has two valves used to introduce nitrogen into the interior. The valve is approximately the size of a pencil's eraser. The existing valve design is made of stainless steel and is screwed into the aluminum exterior of the viewer using metal-to-metal contact. In practice, this has caused sufficient leakage of nitrogen to make it necessary to purge each viewer with a fresh charge of nitrogen gas every six months. Using units usually take all their viewers to a DS repair shop for purging at the same time. Because of the labor involved and the large number of viewers, the expense is substantial.</p>											

SIR 10.00



BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION										A. Budget Submission	
Capital Budget Category: Reliability, Maintainability & Supportability Mod (Dollars in Millions)											
B. Component/Business Area/Date Army, Depot Maintenance - Other		March 1996		C. Line No. 97-R18		Item Description PP-7815 Power Processor Redesign		D. Activity Identification US Army Communications and Electronics Command			
		FY 95		FY 96		FY 97					
Element of Cost		Quantity	Unit Cost	Quantity	Unit Cost	Quantity	Unit Cost	Quantity	Unit Cost	Total Cost	
PP-7815 Power Processor Redesi										0.256	
TOTAL										0.256	
<p>The PP-7815 is a power processor which is installed in Mobile Subscriber Equipment and the AN/TTC-39 Switch. There are approximately 1500 PP-7815 units in the field. The PP-7815 will be redesigned to make it more maintainable and reliable. The current design is very difficult to maintain and has demonstrated suspect reliability in the field. The redesigned unit will be modular in nature, easier to troubleshoot, and will employ more reliable components and design practices.</p> <p>Current units are experiencing a 24% washout rate, which is expected to increase as units approach the end of their useful life. There is currently a production contract in place to replace washed out units. Redesigning units will be bought off this contract. The unit price for the new unit is estimated to be the same as for the current design. Phase-in of new design will be gradual (about 20% per year) until FY 2002 when all redesigned PP-7815s are in the field.</p> <p>The PP-7815 redesign initiative will include the following configuration changes: modular components, reduced number of parts, organized component layout, and external adjustment voltage controls. The redesigned PP-7815 will have a higher Mean Time Before Failure due to fewer and more reliable components, and allow the field to perform external voltage adjustments, eliminating depot returns. The washout rate is expected to be reduced to 2% due to fielding of newer items.</p>											
SIR										10.00	

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION										A. Budget Submission	
Capital Budget Category: Reliability, Maintainability & Supportability Mod (Dollars in Millions)											
B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996		FY 95		FY 96		FY 97		D. Activity Identification		
	Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost	US Army Communications and Electronics Command		
Element of Cost											
Advanced QUICKLOOK Surveillan									1,226		
TOTAL									1,226		

The current design of the Intermediate Frequency Processor (IFP) utilizes extensive point to point wiring between its 22 modules. Extreme temperature swings realized in the aircraft pods cause solder connections to lose continuity. Any problem with the wiring must be fixed at the depot. A redesign to provide a common printed wiring board backplane will provide a much more reliable connection, along with allowing for field repair if there ever is a problem with the backplane. There are 96 of these systems fielded on surveillance aircraft with an additional 204 systems as spares. All 120 systems will be modified.

The redesigned IFP will employ a common backplane, eliminating the point to point wiring and harness connectors. This will improve reliability. In the unlikely event there is a problem with the backplane, it can be removed and replaced in the field, rather than having to go back to the depot.

Returned items will be retrofitted and sent back to the field. Field retrofit will also be performed which will substantially reduce the time to replace all current IFPs. Current units are experiencing about 20 failures per year.

SIR 4.32

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION										A. Budget Submission	
Capital Budget Category: Reliability, Maintainability & Supportability Mod (Dollars in Millions)											
B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996			C. Line No. 97-R20			Item Description AN/PRD-12 Direction Finding Set			D. Activity Identification US Army Communications and Electronics Command	
	FY 95		FY 96	FY 96		FY 97	FY 97				
Element of Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost		
AN/PRD-12 Direction Finding Set									1.573		
TOTAL									1.573		
<p>The AN/PRD-12 is a lightweight man-transportable rapid direction finding system. The AN/PRD-12 includes the ID-2465/PRD-12 hand held display unit. The ID-2465 components include a liquid crystal display (LCD) keypad and a direction finding circuit card. The ID-2465 has a high failure rate due to LCD breakage during keypad use. Currently there is no manufacturing source to repair or replace the broken LCD keypads. Of the 208 fielded units, 52 cannot be issued for this reason. The current design of the display unit is rapidly becoming obsolete, making it insupportable and driving up costs. The proposal seeks to develop a commercial functional replacement which does not depend on the LCD or MIL-SPEC components. Reliability will also be increased by a factor of 2 by using a different type of display. Current units are experiencing almost 100% washout rate. At this rate, all current units will be non-operational in 19 months. Redesignated units can be designed, qualified and produced within two years.</p>											

6.18

SIR

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION										A. Budget Submission	
Capital Budget Category: Reliability, Maintainability & Supportability Mod (Dollars in Millions)											
B. Component/Business Area/Date Army, Depot Maintenance - Other		March 1996		C. Line No. Item Description 97-R21 HMMWV Mounted MLRS FCP-TPT		FY97		D. Activity Identification US Army Missile Command			
		FY 95		FY 96		FY 97					
Element of Co	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost		
HMMWV Mou									4,380		
TOTAL									4,380		

The purpose of this initiative is to enhance unit training through increased reliance on simulation rather than use of expensive tactical weapon systems. The Fire Control Panel Troop Proficiency Trainer (FCP-TPT) simulates fire control for the Multiple Launch Rocket System (MLRS) and will be mounted in approximately 171 High Mobility Multi-Wheeled Vehicles (HMMWVs). Significant O&S savings will accrue based on this system fielding.

SIR 7.23

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION										A. Budget Submission	
Capital Budget Category: Reliability, Maintainability & Supportability Mod (Dollars in Millions)											
B. Component/Business Area/Date Army, Depot Maintenance - Other		March 1996		C. Line No. 97-R22		Item Description M1 Series Slip Ring Upgrade		D. Activity Identification US Army Tank and Automotive Command			
		FY 95		FY 96		FY 97					
Element of Cost		Quantity	Unit Cost	Quantity	Unit Cost	Quantity	Unit Cost	Quantity	Unit Cost	Total Cost	
M1 Series Slip Ring Upgrade										0.807	
TOTAL										0.807	
<p>The Slip Ring Assembly is a device which provides continuity of electrical circuits, high pressure hydraulic fluid and low pressure filtered air between the hull and turret structures throughout continuous relative motion. Modifications are needed to the current system to reduce certain types of failures resulting primarily from moisture seepage and wire chafing. The current system will be modified as follows:</p> <ol style="list-style-type: none"> <li>1) Redesign dynamic sealing internal to the slip ring.</li> <li>2) Use higher strength screws on upper hydraulic assembly.</li> <li>3) Provide antichafing guard to protect static internal wiring.</li> </ol> <p>There are 6,599 systems to be modified.</p>											
SIR		8.36									

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION										A. Budget Submission	
Capital Budget Category: Reliability, Maintainability & Supportability Mod (Dollars in Millions)											
B. Component/Business Area/Date Army, Depot Maintenance - Other	March 1996			FY 96			FY 97			D. Activity Identification US Army Tank and Automotive Command	
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost		
Element of Cost											
TACOM Top 10 Parts										5.050	
TOTAL										5.050	

This initiative will incorporate leading edge technology to provide replacement parts with redesign and producibility improvements which will result in an average savings of 25% in unit costs. Focus will be on the 10 most costly repair items. The Stevens Institute of Technology in Hoboken, NJ has created the Automated Concurrent Engineering Software (ACES) system, a technology which can lower unit manufacturing costs by concurrently optimizing all steps from design through production. This is accomplished by managing the constraints imposed by the complex interdependencies of all the steps in the process -- material selection, product design, process specifications, tool fabrication, and cost estimation. This effort will also create a highly useful module within ACES for the selected part families which converts military standards to performance-based specifications which will permit all qualified commercial suppliers to compete for these replacement parts contracts. This added dimension of the proposed program will reduce cost through identification of a minimum set of optimum performance-based specifications utilizing broad-based specifications for the selected part families. This program will focus on making procurement cheaper for the 10 items which are most costly to repair.

SIR  
10.00

**Business Area Capital Investment Summary**

**Army Depot Maintenance, Ordnance**

(\$ in Millions)

Line Number	Description	FY 95		FY 96		FY 97	
		Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost
<b>EQUIPMENT</b>							
97-A1	Replacement						
	Various Capital Equipment <\$500K	1	4.600	1	13.000	1	14.283
97-A3	Bulk Dunnage Incinerator					1	0.771
97-A13	Laser Fabrication Center	1	0.583				
<b>Productivity</b>							
97-A5	Hi-Shear Mixer	1	0.659	2	1.300		
97-A12	Loading Press Machine						
	TOTAL	3	5.842	3	14.300	2	15.054
<b>ADPE &amp; TELECOMMUNICATIONS</b>							
97-A7	Sperry 5000 Personal Computers			12	2.400		
97-A8	Fiber Optic Network			2	2.000		
97-A9	Misc ADP <\$100K			5	0.327	3	0.160
97-A10	Life Cycle Replacement of ADPE					50	0.110
97-A11	Digital Conference Bridge (Telecommo)			1	0.135		
	TOTAL			20	4.862	53	0.270
<b>MINOR CONSTRUCTION</b>							
97-A6	Various Minor Construction	7	0.717	13	2.600	14	2.145
	TOTAL	7	0.717	13	2.600	14	2.145
	GRAND TOTAL	10	6.559	36	21.762	69	17.469

DEPOT MAINTENANCE - ORDNANCE  
 FY 1996 DBOF CAPITAL PURCHASES  
 DEFERRALS, CANCELLATIONS, SUBSTITUTIONS

Army  
 (Dollar in Thousands)

1. Depot Maintenance - Ordnance - Crane Army Ammo Activity		
a. Replacement Equipment - Linear X-Ray Accelerator		
b. Cancelled		
c. Acquired a Linear X-ray at no cost from BRAC 95 initiative. This X-ray was obtained after the FY 1995 budget was submitted.		\$1,211
2. Depot Maintenance - Ordnance - Watervliet Arsenal		
a. Productivity Equipment - Plant Consolidation		
b. Cancelled		
c. Workload did not materialize. Funded workload did not justify cost of acquisition.		\$703
3. Depot Maintenance - Ordnance - Rock Island Arsenal		
a. ADPE & Telecommunications - Digital Conference Bridge		
b. Substituted Project		
c. The existing teleconference bridge has deteriorated to a critical point, further component failures will render the system inoperative.		\$135



**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Equipment - Replacement**  
**(\$ in Millions)**

B. Component/Business Area/Date		March 1996		C. Line No.		Item Description		Various Capital Equipment <\$500K		FY 97		D. Activity Identification		A. Budget Submission	
Army, Depot Maintenance - Ordnance				97-A1		Various Capital Equipment						Various Installations		FY 1997 Budget Estimate	
		FY 95		FY 96		FY 97									
Element of Cost		Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost		
Various Capital Equipment <\$500		1	4,600	4,600	1	13,000	13,000	1	14,283	14,283	1	14,283	14,283		
TOTAL		1		4,600	1		13,000	1		14,283	1		14,283		

Includes various pieces of capital equipment needed by Depot Maintenance - Ordnance Installations. The items support production via equipment replacement and upgrade, provide for mission capability and environmental compliance. All items have been examined during on-site reviews made by Headquarters technical and financial staffs. Items are supported by economic analyses, and installation and command level prioritization.

Replacement of equipment is due to age, condition, or non-availability of spare parts. Items include production and general support machines such as lathes, mills, grinders, chemical and explosive equipment and machine controls.

Productivity items improve efficiency and reduce cost for the Load Assemble and Pack; renovation and demilitarization of ammunition; production of defensive chemical items; and manufacturing of cannon and weapons components. These items include modern presses, grinders, inspection equipment and cutters, plus state-of-the-art machining centers and materiel handling equipment.

Meets customer requirements and takes advantage of business opportunities.

Environmental compliance provides an alternate electrical power feed for a fire protection system.

Impact to business area if funding is not provided: Excessive downtime and maintenance cost will be experienced due to equipment failure; an excessive reject rate and unnecessary cost will arise because productivity measures will not be implemented; and the potential for an environmental mishap will continue if the fire system is not provided with alternate power feed.

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Equipment - Replacement**  
**(\$ in Millions)**

B. Component/Business Area/Date Army, Depot Maintenance - Ordinance				March 1996		FY 95		FY 96 97-A3		Item Description Bulk Dunnage Incinerator		FY 97		A. Budget Submission FY 1997 Budget Estimate		D. Activity Identification Pine Bluff Arsenal	
Element of Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Unit Cost	Total Cost		Total Cost	
Bulk Dunnage Incinerator													1	0.771		0.771	
<b>TOTAL</b>													1			0.771	

The current system used to burn and dispose of non-hazardous materials is the Car Bottom Incinerator which, due to the size and design, greatly limits the amount of materials that can be incinerated over a given period of time. The present system generates much less income because of lower capacity. The proposed Bulk Dunnage Incinerator has a capacity estimated at four times greater than the present system

Pine Bluff Arsenal sells the services of its incineration systems to the Department of Defense for disposal of a variety of items, including out-of-date medical supplies and out-of-date materiel. Without the new system, Pine Bluff Arsenal's medical waste and hazardous waste incineration programs will be limited in capacity based upon the existing method of disposal.

The Economic Analysis is completed. The present value of net increase in revenue from operations is \$14.0M; net value of new investment is \$700K; and, payback period is 5.1 months to one year.

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: Equipment - Productivity**  
**(\$ in Millions)**

B. Component/Business Area/Date Army, Depot Maintenance - Ordnance				March 1996		C. Line No. 97-A5		Item Description Hi-Shear Mixer		FY 97		FY 96		FY 95		Element of Cost	
		Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	
Hi-Shear Mixer Installation					1	1.200	1.200										
					1	0.100	0.100										
TOTAL					2		1.300										

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: ADPE & Telecommunications**  
**(\$ in Millions)**

B. Component/Business Area/Date Army, Depot Maintenance - Ordnance	March 1996			C. Line No. 97-A7			Item Description Sperry 5000 Personal Computers			FY 97			D. Activity Identification Various Installations		
	FY 95			FY 96			FY 97			FY 97			FY 97		
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
Element of Cost															
Sperry 5000 Personal Computers															
Hardware				6	0.208	1.248									
Software				6	0.192	1.152									
<b>TOTAL</b>							12		2.400						

Current systems are supported with aging Unisys computers that are expensive to maintain and cannot support emerging requirements. This project replaces Unisys computers with computers that have greater processing power and system capacity which supports emerging requirements and provides the infrastructure required to implement client-server architecture. This leads to greater command-wide access to corporate data and reduces overall costs. Migration to an open systems environment can be achieved through the acquisition of standard compliant hardware and software components. Sustainment costs are reduced dramatically as the workload of the current systems can be consolidated. Significant reductions in hardware and software maintenance and operation support requirements are realized. Depending on the number of concurrent users and specific processing environment costs, sustainment costs may be consolidated to a 12 to 1 ratio.

The alternative is to continue to use existing computers which results in the continued high maintenance costs with the eventual risk of complete system failure due to lack of parts and system software.

Personal computers are for the following activities: Watervliet Arsenal, Crane Army Ammo Activity, Pine Bluff Arsenal, Rock Island Arsenal, and McAlester Army Plant.

The Economic Analysis is completed. The Savings to Investment Ratio is 3:1; Payback period is 3 years; and, Net Present Value of Savings is \$790K.

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: ADPE & Telecommunications**  
 (\$ in Millions)

B. Component/Business Area/Date Army, Depot Maintenance - Ordinance				March 1996		FY 95		FY 96		FY 97		A. Budget Submission FY 1997 Budget Estimate	
												D. Activity Identification Crane Army Ammo Activity	
Element of Cost				Quantity	Total Cost	Quantity	Unit Cost	Quantity	Total Cost	Quantity	Unit Cost	Total Cost	
Fiber Optic Network													
20 Base T-Ethernet Cable,						1	1.366		1.366				
Software, and Hardware						1	0.634		0.634				
Installation													
<b>TOTAL</b>						2			2.000				

The Fiber Optic Network project is a joint effort to extend the current modernization infrastructure presently being undertaken by the Crane Naval Surface Warfare Center (NSWC).

Currently, several isolated manufacturing sites have no connectivity to any computer facility. In fact, most buildings rely on an obsolete broadband network (installed in the early 1980s) characterized by inadequate site coverage and extremely high annual maintenance costs. As the Navy continues to upgrade its communication infrastructure, Crane Army Ammo Activity will not be able to afford the increased maintenance costs associated with the older system.

Benefits to the business include lower annual maintenance fees to NSWC for network services and improved connectivity to ammunition surveillance, refurbishment, storage and shipping areas. Current network maintenance costs are \$400K per year; estimated fiber optic network maintenance costs are \$40K per year. In addition, a primary consideration is that the existing broadband network has a life expectancy of 2-3 years, after which significant performance deterioration and additional costs are expected.

Total present worth of Network Replacement Costs is \$2.807M. A comparison of network replacement costs and current maintenance costs shows a net present worth of \$263K expected to be saved by a new fiber optic network each year over the 10 year life-cycle. This is a Savings to Investment Ratio of 1.1:1. This ratio is expected to improve due to improved network connectivity and refined cost estimates.

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: ADPE & Telecommunications**  
**(\$ in Millions)**

B. Component/Business Area/Date Army, Depot Maintenance - Ordnance				March 1996		FY 95		FY 96		FY 97		FY 1997 Budget Estimate	
Element of Cost				Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Total Cost
Misc ADP <\$100K													
Graphics Workstation (Hardware)				1	0.082	0.082							
RISC Processors (Hardware)				1	0.072	0.072							
CAD System Upgrade (Hardware)				1	0.058	0.058							
Desktop Software replacement				1	0.085	0.085	1	0.085	0.085	1	0.085	0.085	
Operating Software													
Mini computer replacement (Hardware)				1	0.030	0.030				1	0.045	0.045	
										1	0.030	0.030	
<b>TOTAL</b>				<b>5</b>		<b>0.327</b>	<b>3</b>		<b>0.160</b>	<b>3</b>		<b>0.160</b>	

These miscellaneous information management projects replace old/obsolete, and unrepairable equipment with current state-of-the-art equipment.

Graphics Workstation: Personal computers are needed to furnish upgraded customer service locally and access/use end-ammunition information world-wide. Project is exempt from Economic Analysis due to the absence of any choice or trade-off among alternatives.

Reduced Instruction Set Computer (RISC) Processors: Under the Standard Depot System redesign, systems must be able to operate under the Open Systems Interface (OSI). The existing systems are not OSI compatible and RISC processors (UNIX 5.4) are needed to be compliant and stay current with DoD standards.

Computer Aided Design (CAD) System Upgrade: This project is required to upgrade existing CAD system hardware and software to enhance present mechanical design capabilities and replace the current Medusa system which is 7 years old and is not expandable for future needs. Economic Analysis is completed

The software and hardware is required to replace current equipment which is obsolete.

Savings are realized through decreased maintenance and repair costs and reduced manhours to perform functions.

BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION									
Capital Budget Category: ADPE & Telecommunications									
(\$ in Millions)									
B. Component/Business Area/Date Army, Depot Maintenance - Ordnance	March 1996		FY 95		FY 96		FY 97		A. Budget Submission FY 1997 Budget Estimate
	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	
D. Activity Identification Rock Island Arsenal	Life Cycle Replacement of ADPE								
	Life Cycle Replacement of ADPE								
TOTAL							50	0.002	0.110
Life cycle replacement of hardware, software, and cabling connecting to the Rock Island Local Area Network (LAN). This equipment is mission essential in maintaining the communication links that allow Rock Island to access, inquire, and process transactions to remote hosts as well as maintaining access to E-mail and LANs for desktop automation.									
Failure to perform life cycle replacement of obsolete network hardware causes the Director of Logistics (DOL) to continue to work with less than adequate tools necessary to perform the mission. Workplace automation efforts to improve production and efficiency are ineffective without continued surveillance and replacement of inadequate network equipment.									
Failure to acquire upgraded equipment causes the Department of Defense to be unable to maintain vital communication links with the Rock Island LAN, Defense Mega-Center, Defense Finance & Accounting Service, and other DOL customers.									

**BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION**  
**Capital Budget Category: ADPE & Telecommunications**  
**(\$ in Millions)**

B. Component/Business Area/Date Army, Depot Maintenance - Ordnance					C. Line No. 97-A11					D. Activity Identification Rock Island Arsenal					A. Budget Submission FY 1997 Budget Estimate	
March 1996					FY 96					FY 97						
Element of Cost	FY 95		FY 96		FY 97		FY 98		FY 99		FY 00		FY 01		FY 02	
	Quantity	Unit Cost	Quantity	Unit Cost	Quantity	Unit Cost	Quantity	Unit Cost	Quantity	Unit Cost	Quantity	Unit Cost	Quantity	Unit Cost	Quantity	Unit Cost
Digital Conference Bridge (Telecommo)					1	0.135										
<b>TOTAL</b>					1	0.135										

The teleconference bridge currently in use was manufactured in 1984 and installed in 1985. It consists of three separate bridges that are connected by trunk lines. The bridges are no longer manufactured and maintenance support has been discontinued. The teleconference bridge no longer provides satisfactory conferencing support as participants often drop off through no fault of their own. In addition, as bridges are connected for larger conference calls, the noise level often increases to a level that causes cancellation of the effort. Repair parts are only available through cannibalization of other older bridges that are no longer working. The Industrial Operations Command (IOC) has over forty subordinate installations providing maintenance, warehousing, and manufacturing support to the Defense effort. Numerous conference calls are required to coordinate schedules affecting delivery, acquisition, and transportation of items repaired, stored, or manufactured within the IOC. If additional circuit boards or system components fail, the system will be rendered inoperable resulting in delay of manufacturing, maintenance, and delivery of items. The Digital Conference Bridge is fully compatible with the AT&T Systems 85 Electronic Telephone Switch installed at Rock Island Arsenal in 1985.

This project replaces the old teleconference bridge with the AT&T Definity Switching System which comes equipped for 96 trunks and is expandable to 148 trunks. The new system requires considerably less maintenance and is fully automated to reduce the amount of telephone operator intervention.

Economic Analysis is completed. The benefit to investment ratio is .8.



BUSINESS AREA CAPITAL INVESTMENT JUSTIFICATION									
Capital Budget Category: Minor Construction									
(\$ in Millions)									
B. Component/Business Area/Date Army, Depot Maintenance - Ordnance	March 1996		C. Line No.		Item Description		D. Activity Identification		
	FY 95		97-A6		Various Minor Construction		Various Installations		
Element of Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
Various Minor Construction	7	0.102	0.717	13	0.200	2.600	14	0.153	2.145
TOTAL	7		0.717	13		2.600	14		2.145
<p>Minor construction projects are needed to improve the infrastructure at Depot Maintenance - Ordnance installations. This includes minor modifications to real property, and upgrade of production, administration and plant utility areas. Examples include provision of handicapped access, improvement of material handling, replacement of plumbing, and ventilation and waste/storm water lines. Many minor construction projects are required to comply with environmental, safety, or health regulations/inspections. Examples of impact if not funded are: Shutdown of plating facility, continued loss of daily production, electrical service not in compliance with safety regulations, sewage systems not in compliance with environmental regulations, and boiler stacks in violation of the Environmental Protection Agency Clear Air Act. In addition, security fences are required to protect and secure ammunition.</p> <p>Economic Analyses support these minor construction efforts.</p>									